INITIAL SITE INVESTIGATION
NAVISTAR/BURLINGTON NORTHERN
RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

March 1994

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INITIAL SITE INVESTIGATION REPORT
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Geraghty & Miller, Inc. is submitting this report to Navistar International Transportation Corporation and Burlington Northern Railroad for work performed at the former International Harvester manufacturing facility and Burlington Northern Railroad roundhouse property located in Rock Island, Illinois along the Sylvan Slough. This report was prepared in conformance with Geraghty & Miller's strict quality assurance/quality control procedures to ensure that the report meets industry standards in terms of the methods used and the information presented. If you have any questions or comments concerning this report, please contact one of the individuals listed below.

Respectfully submitted,

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CONTENTS

FIGURES

FIGURES (continued)

TABLES

APPENDICES

INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN
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1.0 INTRODUCTION

Geraghty & Miller, Inc. was retained by the Navistar International Transportation Corporation (Navistar) and Burlington Northern Railroad (BNR) to conduct a review of historical site information and perform an initial soil and groundwater investigation (Initial Site Investigation) in response to inquiries made by the Illinois Environmental Protection Agency (IEPA) regarding the seepage of oil into the Sylvan Slough, located in Rock Island, Illinois. The oil seepage into Sylvan Slough, a tributary of the Mississippi River, was reported by the IEPA along the Sylvan Slough adjacent to the western end of the Quad City Industrial Center (QCIC), the former International Harvester Farmall tractor assembly plant, and near two adjacent parcels of land owned by Navistar and BNR. The intent of the Initial Site Investigation is to identify the potential sources of the oil seepage to the Sylvan Slough and determine the nature of any subsurface soil or groundwater contamination that may exist.

This Initial Site Investigation Report summarizes the results of historical site information and agency file reviews, a preliminary site inspection, and an initial subsurface soil and groundwater investigation conducted by Geraghty & Miller. The historical site information review was performed to identify potential sources of the oil seepage and included the review of IEPA Bureau of Land and Division of Water Pollution Control files, previous environmental site assessments and investigations, aerial photographs, Sanborn fire insurance maps, and regulatory agency databases. The soil and groundwater investigation was performed to identify any subsurface contamination that may exist at the Navistar and BNR properties and its potential relationship to the oil seepage to the Sylvan Slough. The subsurface investigation consisted of the advancement of six soil borings completed as monitoring wells and soil and groundwater sampling.

This Initial Site Investigation Report has been organized into seven sections, each of which is briefly described below. Figures, tables, and references have also been included.

Section 1.0, Introduction, provides the introduction to, and states the intended purpose of, this report.

Section 2.0, Site Description, presents a description of the location of the Navistar and BNR sites, including the surrounding land use and regional geology and hydrogeology.

Section 3.0, Site History, presents a brief summary of the former Farmall facility, along with a summary of the former uses of the outfalls to Sylvan Slough, past oil discharges to Sylvan Slough reported to the IEPA, and previous environmental site assessments and investigations.

Section 4.0, Site Reconnaissance, presents a summary of Geraghty & Miller's preliminary site inspection of the Navistar, BNR, and QCIC properties. Areas of potential environmental concern and potential sources of the oil seepage are also identified.

Section 5.0, Subsurface Soil Investigation, presents a summary of the subsurface soil investigation that was performed on the BNR property.

Section 6.0, Groundwater Investigation, presents a summary of the installation and sampling of the monitoring wells at the BNR site and the sampling of the existing monitoring wells located on the Navistar property.

Section 7.0, Conclusions and Recommendations, provides a summary of conclusions regarding the potential sources of the oil seepage and current site subsurface conditions and includes Geraghty & Miller's recommendations for potential further action.

2.0 SITE DESCRIPTION

This section of the report consists of a review of the physical setting, surrounding land use, and geological setting of the site. The information presented in this section was obtained by Geraghty & Miller during our visual site inspection, conversations with Navistar and BNR representatives, previous site investigation reports, regulatory agency files, and published information.

2.1 PHYSICAL SETTING

The former International Harvester Farmall (Farmall) manufacturing facility, now known as the QCIC, is located adjacent to the Sylvan Slough. The Sylvan Slough is a tributary of the Mississippi River and flows between the site and Rock Island Arsenal, along 5th Avenue at 44th Street in Rock Island, Illinois (Figure 2-1). The former Farmall facility occupied approximately 80 acres, 20 of which are currently owned by Navistar; the remaining 60 acres, including the former facility buildings, are currently owned by the L.R. Christenson Company, the management firm operating the QCIC. The QCIC facility is approximately 1,250 feet wide and 8,250 feet long and occupies about 1.6 million square feet of floor space under roof.

The Navistar portion of the former Farmall property extends immediately along the Sylvan Slough between the eastern property boundaries at 46th Street (the boundary between the Cities of Rock Island and Moline) and the western property boundary at about 28th Street. The first 5 feet of land immediately along the Sylvan Slough is reportedly not owned by Navistar, but is a right-of-way either owned by a governmental authority or a public utility. The BNR property is located immediately west of the QCIC property and south of the Navistar property. A layout of the current ownership of the former Farmall property and the location of the BNR property are depicted on Figure 2-2. Figure 2-2 does not show the right-of-way immediately along the Sylvan Slough.

The general topography of the Navistar, BNR, and QCIC properties is relatively flat, with a gentle westward slope, and with notable slopes between each separate parcel of land.

Generally, the BNR property is approximately 5 feet lower than the Navistar and QCIC properties. The northern edge of the Navistar property drops off approximately 20 feet to the Sylvan Slough, which is located immediately north of the Navistar, BNR, and QCIC properties. According to the elevation survey conducted by Beling Consultants, Inc. at each monitoring well location, the average ground elevations of monitoring wells at the Navistar, BNR, and QCIC properties are 567.3 feet above mean sea level (ft msl), 563.4 ft msl, and 569.0 ft msl (Beling Consultants, Inc. 1993).

2.2 SURROUNDING LAND USE

The Navistar and BNR properties are located in an area of heavy industry along the Sylvan Slough. The nearest residential area is located south of 5th Avenue approximately ¼ mile south of the BNR property boundary; the campus for Augustana College is also located within this residential area. The surrounding land use is depicted on Figure 2-2.

As discussed previously, the Sylvan Slough forms the northern property boundary of the Navistar and QCIC properties; Rock Island Arsenal and Sylvan Island Park are on the opposite side of the slough.

The southern boundary of the Navistar, BNR, and QCIC properties primarily consists of a railroad right-of-way with several tracks operated by Iowa Interstate Railroad and one railroad right-of-way with two tracks operated by BNR. In addition to the right-of-ways, Iowa Interstate also operates a large railyard service facility. The Iowa Interstate service yard is located directly adjacent to the soil and groundwater study area. The Iowa Interstate right-of-ways and service yard were formerly owned and operated by the Rock Island Railroad. Based on Geraghty & Miller's review of aerial photographs and Sanborn Fire Insurance maps, the Rock Island Railroad operated a roundhouse facility until about the mid-1960s. The roundhouse facility was evident in a 1898 Sanborn map, but the exact date that the roundhouse facility operation began is unknown. In addition, aboveground oil storage tanks that currently exist on

the Iowa Interstate property were also evident on historical aerial photographs and Sanborn maps during the time that the Rock Island Railroad owned and operated the Iowa Interstate property.

The property west of the Navistar property is primarily undeveloped; a river water pump station for the City of Rock Island is also reportedly located to the west (Pilko & Associates, Inc. 1987a). The nearest property located east of the QCIC is the closed Midway Oil Company storage facility, which was a former distributor of Exxon products. Other properties located further to the east (along 3rd Avenue) include the City of Moline Wastewater Treatment Plant, an Iowa Illinois Electric Company Moline Generating Station, and a John Deere manufacturing facility.

2.3 GEOLOGICAL SETTING

The Navistar, BNR, and QCIC properties are located on predominantly man-made fill and sand and gravel river deposits overlying either Pleistocene to recent-aged alluvium or Devonian-aged shale and limestone. The undeveloped western portion of the Navistar property has approximately 15 to 20 feet of fill in place. The fill material encountered at the site consists primarily of black sands and cinders that likely originated from the on-site foundry that was in operation until 1967 (Pilko & Associates, Inc. 1989). Below the fill material is a minimum of 10 feet of sands and gravels deposited by the Mississippi River. The sands and gravels overlie the limestone and shale. Prior to the placement of the fill material in the late 1950s to early 1960s, the undeveloped western portion of the Navistar property was often flooded by high waters from the Sylvan Slough, as shown in historical aerial photographs.

No fill material is present at the BNR property. The soils encountered at the BNR property consist strictly of alluvial (river) sand and gravel deposits, which overlie limestone or shale. The thickness of the unconsolidated sand and gravel river deposits, as determined by soil borings advanced on site, averaged approximately 15 feet across the BNR property.

The shale and limestone encountered at the Navistar and BNR sites belong to the Cedar Valley Formation of the Devonian Age. The Cedar Valley Formation is primarily a highly fossiliferous, crystalline, light gray limestone containing some fine-grained, argillaceous beds, thin shaley partings, and sandstone (Willman, et al. 1975). Near Rock Island, the Cedar Valley Limestone is about 60 feet thick and overlies the Wapsipinicon Limestone, which, in Illinois, is only exposed in the Rock Island area. The Wapsipinicon Limestone, also of Devonian Age, is dominantly fine-grained to lithographic, pure limestone with some argillaceous and dolomitic beds that have a maximum thickness of about 60 feet thick near the Mississippi River (Willman, et al. 1975). The Cedar Valley and Wapsipinicon Formations, along with the underlying Silurian Age dolomite and limestone, form the Hunton Limestone Megagroup.

3.0 SITE HISTORY

The Navistar and QCIC properties were the site of a former International Harvester Farmall tractor assembly plant. Since its closing in 1986, the former Farmall site was divided into two parcels; 20 acres of the former Farmall site were transferred to Navistar, and 60 acres, which included the former Farmall facility buildings, were sold to the City of Rock Island. The City of Rock Island subsequently sold the property and facility buildings to L.R. Christenson Company, which redeveloped the site into an industrial park complex known as the QCIC.

Early operations at the site included woodworking shops and a gray iron (green sand) foundry, which operated until the late 1960s (Pilko & Associates, Inc. 1987a). The spent foundry sands were reportedly used as man-made fill materials for the western portion of the Navistar property to prevent the area from becoming inundated by flood waters from the Sylvan Slough. Small copper- and nickel-plating operations are also reported to have been operated at the former Farmall plant (Pilko & Associates, Inc. 1987a). At the time of the plant shutdown in 1986, the main operations at the site consisted primarily of tractor assembly. Parts were shipped from other locations and assembled at Rock Island (Pilko & Associates, Inc. 1987a).

During the peak of its operating life, besides its tractor assembly operations, the Farmall facility manufactured drive train parts, including transmissions, gears, axles, and shafts, for the tractors assembled on-site, as well as for larger tractors assembled at other locations (IEPA 1980a). The basic manufacturing processes consisted of the assembly of tractors and the machining of gears and castings (IEPA 1980a). The Farmall facility also operated eight wet paint booths for painting tractor components and two dry paint booths for touch-up painting, along with a heat-treating process (IEPA 1980a). Cyanide was reportedly not used in the heat-treating process (IEPA 1980a). The locations of the paint booths or heat-treating process operations within the former Farmall facility are unknown.

The wastewaters generated from the former Farmall facility operations that entered the on-site pretreatment facility consisted primarily of wash water from the parts washing machines, machine coolants, and used oils. Cooling water formerly discharged from the Farmall facility

consisted of discharges from the axle, gear, and shaft machining processes; from the heat-treating processes; and from welders and powerhouse air compressors (IEPA 1980a).

The Farmall facility also formerly maintained a number of underground storage tanks (USTs). There were reportedly 21 USTs, ranging in capacity from 6,000 to 13,000 gallons, at the former Farmall site (Pilko & Associates, Inc. 1987b). The USTs were used primarily for the storage of various petroleum-related products, such as hydraulic, transmission, lubricating, cutting, and quench oil, diesel fuel, diesel fuel with additives (flushing fluid), gasoline, and antifreeze (IEPA 1980a). Based on a Freedom of Information Act (FOIA) request sent by Geraghty & Miller to the Illinois Office of the State Fire Marshall (OSFM), a 1986 Notification of Underground Storage Tanks registration permit form showed that only 12 USTs, each of which was reportedly emptied of product and filled with an inert material, were present at the former Farmall site.

3.1 FORMER USES OF OUTFALLS TO SYLVAN SLOUGH

The Farmall facility formerly operated seven outfalls under a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of non-contact cooling water to the Sylvan Slough (IEPA 1980a). One of the seven outfalls consisted of two separate outfalls that were considered to be a single outfall for permitting purposes. Farmall also formerly operated three additional outfalls for the discharge of storm-water runoff to Sylvan Slough. Process wastewaters were pretreated on-site prior to discharge to the Rock Island City sanitary sewer system (IEPA 1980a). The approximate location of each outfall, as described in the historical files reviewed by Geraghty & Miller, is depicted on Figures 3-1 and 3-2.

Subsequent to the closing of the Farmall plant in April 1986, all sanitary and wastewater discharges for the QCIC were connected to the City of Rock Island's publicly owned treatment works (POTW) without pretreatment (IEPA 1990a). The former Farmall wastewater outfalls were no longer in use except as storm water outfalls routed to area drains, downspouts, and perimeter tiles (IEPA 1990a).

The following summaries for each of the 11 outfalls to Sylvan Slough were provided in a technical memorandum prepared by Mr. James Kammueller of the Peoria Regional Office of the IEPA following his interviews with many former Farmall facility managers (IEPA 1980a). The outfall summaries describe the relative appearance, location, and condition of each outfall during the peak operating period of the Farmall facility, as described in numerous site inspection reports compiled from about 1964 to 1980 by various governmental entities, most notably, the IEPA and the City of Rock Island Sanitary Water Board. The characteristics of each outfall, as described in the IEPA memorandum, are summarized below (IEPA 1980a):

001: Outfall 001 was a 36-inch discharge located on the north side of Building 45. This outfall was a former City of Rock Island storm sewer and reportedly handled storm water from the former Farmall site along with cooling water from the bearing heat-treating process in Building 42 (IEPA 1980a, 1990a). Prior to the construction of the pretreatment facility, the outfall received batch discharges from wash machines (equipped with filter screens and oil interceptors where required) and from one of the wet paint spray booths.

002: Outfall 002 was a 12-inch storm sewer that received storm water from the entrance road at the northeastern corner of the Farmall site. Outfall 002 was not included as part of the former NPDES permit.

003: Outfall 003 was a 24-inch outlet located on the north side of Building 71. This outfall reportedly received cooling water from powerhouse air compressors (IEPA 1980a, 1990a). Prior to the construction of the pretreatment facility, Outfall 003 received batch discharges from wash machines (equipped with filter screens and oil interceptors where required), and wet paint spray booths. During a July 1980 IEPA inspection, the Outfall 003 discharge appeared to be heavy in volume and clear in color with a slight chlorine odor and contained a slight oil film, which was also visible in Sylvan Slough downstream of Outfall 003 (IEPA 1980a). The presence of orange staining on both the outfall invert and the rocks beneath Outfall 003 appeared to indicate that iron had entered the outfall discharge (IEPA 1980a).

004: Outfall 004 was an 8-inch line located on the north side of Building 77. This outfall was the former discharge point for Farmall's process wastewaters prior to the construction of the pretreatment facilities (IEPA 1980a, 1990a). Building 77 is the former Farmall wastewater pretreatment building (IEPA 1990a). The process wastewaters consisted of batch discharges from wash machines or rinse tanks equipped with

filter screens and oil interceptors. As of 1980, the outfall reportedly carried surface water from drains in the pretreatment building area (IEPA 1980a). The July 1980 IEPA site inspection report states that Outfall 004 received several oil spills from the pretreatment facility; these spills entered a catch basin tributary to the outfall (IEPA 1980a).

005: Outfall 005 was a 6-inch storm drain located on the north side of the former powerhouse building (Building 68). This outfall received storm water from the east-west roadway along the north side of the Farmall site (IEPA 1980a, 1990a). Outfall 005 was not included as part of the former NPDES permit.

006: Outfall 006 was located north of the former powerhouse and reportedly received air compressor cooling water discharge from the power station (IEPA 1980a, 1990a). The IEPA noted a 3-inch pipe, located immediately west of Outfall 006, which reportedly discharged boiler blowdown water to the slough (IEPA 1980a). The July 1980 IEPA site inspection report states that the unnamed outfall should be included in the NPDES permit and recommended that this discharge be rerouted to the pretreatment facility due to the potential for high total suspended solids, iron, color, and turbidity (IEPA 1980a).

007: Outfall 007 was a 36-inch corrugated pipe located north of Building 57. This outfall reportedly discharged air compressor, heat exchanger, and axle heat treating cooling water (IEPA 1980a, 1990a). Prior to the construction of the pretreatment facility, Outfall 007 also received industrial waste discharges from parts wash machines.

008: Outfall 008 was a 36-inch line that was paired with Outfall 009 and was located on the north side of Building 50 (IEPA 1990a). Outfalls 008 and 009 are two parallel lines that Farmall referred to as a single outfall (009). At one time, Outfall 008 reportedly served as an overflow from the City of Rock Island's combined sewer system, known as the old 38th Street outfall (IEPA 1980b). During Farmall's peak operating life, Outfall 008 reportedly carried cooling water from the hydraulic power units, welders, and transformers.

Outfalls 008 and 009 parallel each other as they traverse the facility property and are reportedly interconnected at various manholes (IEPA 1980a). Light oil was observed during the July 1980 IEPA inspection from Outfall 008 and a sorbent boom was deployed at the base of the outfall. No description of the color or viscosity of the oil was provided in the IEPA inspection report memorandum. The spill was observed coming out of the City of Rock Island's old 38th Street combined sewer outfall (Outfall 008). It was apparently the result of the continuing seepage from oil-saturated grounds caused by a discharge line rupture on

a 12,000-gallon diesel fuel tank, which occurred near Gate 7 in October 1979 (IEPA 1980b). No volume estimate was given by the IEPA.

In 1990, raw sewage debris was observed around the base of Outfalls 008 and 009 (IEPA 1990b). At this time, Outfall 008 served the QCIC as a storm sewer. The IEPA believed that the sewage debris was due to excess storm water surcharging sanitary sewers and overflowing manholes located south of the industrial center (IEPA 1990b).

009: Outfall 009 was a 48-inch line paired with, and parallel to, Outfall 008 which traverses the former Farmall property. Because Outfalls 008 and 009 are reportedly interconnected at various manholes, Farmall referred to them as a single outfall (009) for purposes of its NPDES permit. Outfall 009 is located on the north side of Building 50 (IEPA 1990a). Outfall 009 formerly received combined sewage overflow from the storm drains on 5th Avenue; these storm drains emptied into a catch basin on Farmall property that flowed into a tributary to Outfall 009 (IEPA 1980a). During Farmall's peak operating life, Outfall 009 reportedly carried cooling water from the hydraulic power units, welders, and transformers (IEPA 1980a). Prior to the construction of the pretreatment facility, Outfall 009 reportedly received industrial waste discharges from wash machines, cleaning booths, and wet paint spray booths, in addition to the non-contact cooling water used in the welding and induction-hardening operations.

During a September 14, 1990 IEPA site inspection, wastewater was observed being discharged from Outfall 009. This discharge was reportedly cooling water from the McLaughlin Body Company welding machines (IEPA 1990a). McLaughlin Body was a tenant of the QCIC. In addition, raw sewage debris was observed around the base of Outfalls 008 and 009, which served as storm sewers in 1990 (IEPA 1990a). The IEPA believed that the sewage debris was due to excess storm water surcharging sanitary sewers and overflowing manholes located south of the QCIC (IEPA 1990a).

010: Outfall 010 received storm-water runoff from a truck ramp and a roadway along the north side of the plant site and was not included as part of the former NPDES permit (IEPA 1980a).

011: Outfall 011 was a 72-inch City storm sewer located west of Building 83. This outfall received cooling water from Farmall welding machines (IEPA 1980a, 1990a). Outfall 011 also received industrial waste discharges from wash machines, cleaning booths, and wet paint spray booths prior to the construction of the pretreatment facility.

3.2 SUMMARY OF ROCK ISLAND RAILROAD OIL SPILL

Based on the file review conducted by Geraghty & Miller, oil was first observed seeping into the Sylvan Slough in 1964. In early 1964, a Rock Island County conservation officer reported the presence of a "huge" oil slick running from the Sylvan Slough down the Mississippi River to Lock and Dam 16 near Muscatine, Iowa (Moline Dispatch 1965). Initial inspections of the outfalls along the length of the former Farmall facility indicated that two outfalls were observed to be major sources of oil: one near the pump house for the former Farmall fire protection system, and the other at the end of 43rd Street (McSwiggin 1964). A description of the oil that was discharged from the sewer near the pump house was not provided because the sewer was submerged (McSwiggin 1964). The oil observed discharging from the 43rd Street sewer, which formerly served the Farmall engine manufacturing area, consisted of a milky emulsion that would apparently break when the warm discharge hit the cold river water thus releasing oil to the water surface (McSwiggin 1964). The milky oil emulsion reportedly appeared to be similar to the type used for cooling metal parts during machining (McSwiggin 1964).

Based on a review of subsequent correspondence between Farmall and the Rock Island Sanitary Water Board for 1964, Farmall apparently implemented a number of preventative measures to limit the potential for the discharge of oil to the outfalls along Sylvan Slough. A follow-up site inspection conducted by Mr. Hank Hannah, Rock Island County Conservation Officer, and Mr. Keith Weeber, Regional Sanitary Engineer of the Illinois Public Health Department (IPHD), revealed that most of the oil was seeping out of an approximate 1,000-foot long section of the river bank to Sylvan Slough downstream of the former Farmall facility (Weeber 1964). According to the inspection report, the location of the oil seepage implicates the source as the Rock Island Railroad diesel fuel leak (Weeber 1964).

A leak in the ground connections of the Rock Island Railroad 150,000-gallon diesel fuel aboveground tank had apparently developed sometime in late 1963 or early 1964 (Moline Dispatch 1965). The leak is believed to have increased in magnitude during the winter of 1964,

resulting in a significant loss of product to the subsurface (Moline Dispatch 1965). Since the notable releases of oil to the Sylvan Slough below the former Farmall facility were discovered 1 month after the Rock Island Railroad diesel fuel leak was discovered and stopped, the county conservation office and the IDPH suspected that a "tremendous" amount of oil had been released to the ground and would continue to seep out into the river for a long time (Weeber 1964). The amount of product loss was estimated to be on the order of tens of thousands of gallons (Giallombardo 1964).

3.3 SUMMARY OF PAST IEPA OIL DISCHARGE OBSERVATIONS

During 1980, the IEPA conducted several inspections of the former Farmall facility in the areas where oil was observed seeping into Sylvan Slough. On May 30, 1980, the IEPA observed oil discharging from the former City of Rock Island's 38th Street combined sewer outfall (Outfall 008). The oil discharge was apparently the result of continuing seepage from oil-saturated soil associated with a spill that occurred near Farmall Gate #7 in October 1979 when the discharge line from a pump on a 12,000-gallon diesel fuel UST ruptured (IEPA 1980b). The discharge was reportedly not a significant volume, but the oil sheen appeared to be steady and continuous (IEPA 1980b). Besides the diesel fuel tank discharge line rupture, the IEPA also mentioned numerous other recent oil spills that had occurred at the Farmall plant into Sylvan Slough. No information regarding the spill volumes was available. These spills included the following:

- April 7, 1980: Spill from pretreatment facilities near Outfall 008 due to pump failure.
- May 23, 1980: Spill from pretreatment facilities into Outfall 008 due to a broken truck hose.
- June 1, 1980: Spill from pretreatment facilities due to pump failure or operator error.

Additionally, a light oil sheen was observed coming from the City of Rock Island's 44th Street storm sewer outfall by the IEPA during its May 30, 1980 inspection. This leakage was reportedly a long standing problem because oil had often been observed seeping into the joints of the 44th Street storm sewer from the former Farmall site. Farmall reportedly believed that the oil observed seeping into the storm sewer was subsurface contamination from UST spills that had occurred in the 1950s when Farmall was testing engines in Building 42 near Gate #1 (IEPA 1980b).

Follow-up site inspections conducted by the IEPA on July 15 and 21, 1980 resulted in the reporting of numerous NPDES permit violations, as well as a number of operation and maintenance recommendations. The most notable violation (pertaining to Geraghty & Miller's information review) was IEPA's statement that visible oil was present in the discharge from Outfall 003 and in Sylvan Slough downstream of Outfall 003.

The IEPA regulatory files reviewed by Geraghty & Miller did not contain any significant information related to oil discharges from the former Farmall plant to Sylvan Slough from May 1982 to September 1990. The IEPA inspected the Sylvan Slough on September 14, 1990. This inspection was prompted by complaints of an oil discharge from a point source approximately one block upstream of the railroad bridge to the Rock Island Arsenal Island. No oil was observed by IEPA during its inspection. The IEPA inspector recalled observing an outfall near the railroad bridge where oil was present during a December 1979 inspection. The IEPA believed that this oil discharge was likely related to the Rock Island Railroad diesel fuel leak discovered in 1964.

On July 20, 1992, the IEPA conducted an inspection of the City of Rock Island storm sewer discharge to Sylvan Slough near the north end of 44th Street due to complaints it had received of oil seeping into the slough at this location. According to file information, the IEPA observed an intermittent sheen of oil in the storm sewer discharge. Additionally, the IEPA discovered oil-contaminated soils and groundwater at the former Midway Oil Company site associated with its oil storage operations. It should be noted that the former Midway Oil

Company site is located above the 44th Street outfall and was likely contributing to the oil observed seeping into the Sylvan Slough.

Complaints received from the City of Rock Island about oil discharge led to a follow-up inspection and a meeting between the IEPA and the City. In a September 10, 1992 internal memorandum, the IEPA discussed several sources of oil discharges to Sylvan Slough; these sources are summarized as follows:

- An outfall located approximately 600 feet upstream of the railroad bridge to the Rock Island Arsenal Island. The Iowa Interstate Railroad depot and maintenance area (formerly owned and operated by the Rock Island Railroad) is reportedly a likely contributor to this outfall (IEPA 1992a).

- An area of the black-stained soil located behind the QCIC (IEPA 1992a). The outfall discharge proximate to the area of stained soil did not appear oily during the September 9, 1992 site inspection. This outfall is located approximately 600 feet downstream of the 72-inch City of Rock Island storm sewer outfall, which is located near the end of 45th Street (44th Street outfall).

- The 72-inch City of Rock Island storm sewer, a reported confirmed source of oil discharge, located near the end of 45th Street (44th Street outfall) (IEPA 1992a).

As a follow-up to its September 9, 1992 site inspection and September 10, 1992 memorandum, the IEPA conducted a November 24, 1992 inspection of the areas with representatives of the City of Rock Island. The City of Rock Island had been monitoring several outfalls for a few months. The following is a summary of the findings of the November 24, 1992 IEPA site inspection:

- The discharge of oil from the City of Rock Island 44th Street storm sewer outfall is reportedly seeping into the storm sewer system at a point located approximately 1,000 feet upstream of the outfall that is located immediately east of the QCIC offices (IEPA 1992b). A black, oily liquid was noted seeping into the east side of the sewer where something apparently dissolved the black mastic on the outside of the sewer pipe and

was observed seeping into the sewer. A small, oily film due to this seepage has reportedly been observed in the discharge from the 44th Street outfall and has been the source of complaints from area fisherman, but not the source of complaints since 1990 by gambling boat patrons (IEPA 1992b).

- The potential source of complaints associated with oil releases from the gambling boat patrons and local fishermen, according to the IEPA, appeared to be an area located approximately 600 feet downstream of the 44th Street outfall. Oil seeping from the river bank into a small inlet tributary to Sylvan Slough has been observed during periods of rainfall (IEPA 1992b). The seepage reportedly has a definite fuel oil odor and begins quickly during a rainfall (IEPA 1992b). No outfall was apparent in the immediate area where the oil seepage was observed. Although the former Farmall Outfall 001 is in the vicinity at a higher elevation, based on IEPA observations, it did not appear to be the source of oil (IEPA 1992b).

  A potential source of the oil that is reportedly seeping into Sylvan Slough is the former Midway Oil Company site, which is located south and east of the river bank area where the oil seepage has been observed (IEPA 1992b). Additionally, the river bank behind the former Farmall plant has apparently been the site of the dumping of miscellaneous debris and waste, such as cinders and floor sweepings, over a period of several years.

  An environmental study performed by Pilko & Associates, Inc. (Pilko) determined the existence of some petroleum product contamination in the soil on the east side of the QCIC near the former Midway Oil property, and of an old burn/dump area located on the Navistar property (IEPA 1992b).

- Another source of complaints associated with oil releases is an area located approximately 600 feet upstream of the Iowa Interstate Railroad bridge and several thousand feet downstream of the previous two source areas. A periodic oily discharge, which exhibits a strong fuel oil odor, reportedly seeps out of the stream bank from an apparent outfall or seepage face (near the former old burn/dump area) covered by debris (IEPA 1992b). A plume of oil was noted in this area on the surface of Sylvan Slough along the shoreline during the September 24, 1992 site inspection. The Iowa Interstate Railroad maintenance depot (former Rock Island Railroad facility) is located due south (upgradient) of this area. In addition, old building plans indicate that there may be an old sewer outfall to Sylvan Slough which could represent a conduit for the diesel fuel to the

Sylvan Slough (IEPA 1992b). (The location of this sewer line was later confirmed [IEPA 1993b].)

Subsequent to the findings of its November 24, 1992 inspection, the IEPA notified Navistar, Iowa Interstate Railroad, and Midway Oil about its investigation of the oil discharges to Sylvan Slough. A meeting and site inspection regarding the oil discharges to Sylvan Slough was held on January 26, 1993. Representatives from Navistar, Midway Oil, Iowa Interstate Railroad, QCIC, City of Rock Island, and IEPA attended the January 26, 1993 meeting. During the meeting, the IEPA recommended that Navistar and any other potentially responsible parties (PRPs) agree to take action to eliminate the discharge of oil to Sylvan Slough by participating in the Illinois Pre-Notice Program (formerly Illinois Voluntary Cleanup Program). In the opinion of the IEPA, the major areas of environmental concern appeared to be the area proximate to former Farmall outfall 001 and the area upstream of the railroad bridge (IEPA 1993a).

USEPA

The ~~IEPA~~ held another meeting on February 10, 1993 regarding oil discharges to Sylvan Slough related to an Emergency Response Reconnaissance Investigation. This investigation occurred subsequent to an oil release that had reportedly been ongoing since February 4, 1993. The February 4, 1993 release reportedly occurred from a corrugated steel sewer outfall, located approximately 300 feet downstream of the 44th Street City of Rock Island storm sewer outfall, adjacent to three power transmission lines.

On February 8, 1993, the Coast Guard and City of Rock Island located the old sewer system on the BNR property. Four manholes, which were apparently part of this system, were observed. Oily odors were reportedly evident in three of the four manholes while oil was present in two of the four manholes. The manholes are located adjacent to the location of the former BNR roundhouse facility. The IEPA once again implicated the massive 1964 release of diesel fuel at the Iowa Interstate (Rock Island Railroad) property to be a potential source of the oil found in the manholes at the BNR property (IEPA 1993b).

3.4 PREVIOUS SOIL AND GROUNDWATER INVESTIGATIONS

In May 1988 and June 1989, Pilko performed a soil and groundwater investigation at the Navistar property to evaluate whether contamination was present from past site activities. A total of 13 soil borings and nine monitoring wells was completed on the Navistar-owned section of the former Farmall property. Figure 3-3 depicts the location of the Pilko soil borings and monitoring wells. The most significant finding from the May 1988 field investigation was the widespread detection of oil in the subsurface. Soil sample analyses indicated that the detectable oil-related constituents were concentrated at or near the shallow water table (Pilko & Associates, Inc. 1989). The area with the highest concentrations of constituents in the soil was the western landfill area (i.e., former open burn/dump area), which is located north-northwest of the BNR and Iowa Interstate properties. Groundwater sample analyses revealed the presence of organic compounds throughout the site, with the highest concentrations at the southern edge of the property adjacent to the railroad property (MW-5).

On March 10, 1992, Pilko resampled eight of the nine monitoring wells at the Navistar property; one of the wells (MW-3) had been destroyed since Pilko's earlier sampling effort. During the groundwater sampling, a fuel oil odor was evident in MW-6 and a layer of oil was measured in MW-9 on the top of the water table. The oil noted at MW-9 diminished subsequent to purging of the well. The results of Pilko's 1992 sampling indicated a change in groundwater quality at the Navistar property since its 1988 and 1989 sampling efforts. Groundwater quality in the eastern half of the site had improved; in particular, gasoline constituents (benzene, ethylbenzene, toluene, and xylenes [BETX]) were no longer detected in MW-2. However, the area defined by MW-6 and MW-10 appeared to have had a significant increase in the detectable concentrations of total petroleum hydrocarbons (TPH). Based on the analytical results, Pilko believed that the contamination present in and around MW-6 and MW-9 appeared to be diesel fuel (Pilko & Associates, Inc. 1992).

On February 11, 1993, Pilko resampled the remaining seven monitoring wells at the Navistar property; another monitoring well (MW-4) had been destroyed after the 1992 sampling

event. During the groundwater sampling, as noted during the 1992 groundwater sampling event, a fuel oil odor was evident in MW-6 and a layer of oil was measured in MW-9 (12 to 14 inches). In addition, a layer of oil was also evident in MW-10 (1 to 2 inches). The oil thicknesses reportedly decreased to less than 1/8 inch at the time the sample was collected. Gasoline constituents (BETX) were detected again in MW-2, and for the first time in MW-9. Pilko concluded that the analytical results of the previous four groundwater sampling events were inconsistent. The primary conclusion reached by Pilko was that the highest concentration of petroleum constituents in the subsurface soil was in the area defined by MW-5, MW-6, MW-9, and MW-10 where free product was evident. This area is located in the west-central portion of the site, north-northwest of the BNR and Iowa Interstate properties (Pilko & Associates, Inc. 1993).

4.0 SITE RECONNAISSANCE

On October 18, 1993, representatives from Navistar, BNR, and Geraghty & Miller performed a visual inspection of the Navistar, BNR, and QCIC properties (former Farmall site). Particular attention was paid to the Navistar and BNR properties located on the west end of the QCIC where the most significant oil seepage into the Sylvan Slough was observed by the IEPA in late 1992 (IEPA 1992b). The BNR property is located in an area between the Navistar and Iowa Interstate Railroad properties and immediately west of the QCIC western asphalt-paved parking lot (see Figure 2-2).

During the 1993 Midwest Flood, the water level of Sylvan Slough was within 2 to 3 feet of the elevation of the roadway that runs along the north side of the QCIC. Geraghty & Miller obtained a color aerial photograph that was taken on July 12, 1993 during the maximum river stage. In the aerial photograph, the Navistar property appeared unaffected by the flood, whereas virtually the entire BNR property appeared to be stained with oil. According to BNR, the water table essentially rose to the ground surface during the flood, causing oils contained within the groundwater to rise to the surface. As mentioned previously in this report, the ground surface elevation of the BNR property is about 5 feet lower than the ground surface elevation of the surrounding Navistar and QCIC properties. During the October 18, 1993 inspection, Geraghty & Miller observed numerous stained surface areas that were apparently residuals from the flood.

In addition to the numerous stained surface areas, another potential environmental concern observed by Geraghty & Miller was three pipe conduits to the subsurface in the area where a floating layer of oil was observed. The pipe conduits were located near a concrete building foundation in the center of the BNR property. BNR did not have any knowledge of either the nature of the building that had formerly existed on the foundation or the pipe conduits to the subsurface.

Another area of note that Geraghty & Miller observed during the inspection was the location of a former railroad roundhouse and turntable in the eastern half of the BNR property. This former roundhouse and turntable had been used for the repair and maintenance of BNR

railcars and locomotives. The former roundhouse and turntable appear to be located directly upgradient of the outfall discharge to Sylvan Slough and the former storm sewer, which had been excavated as a result of the United States Coast Guard (USCG) February 1993 emergency response (IEPA 1993b).

During the October 18, 1993 site inspection, Geraghty & Miller also identified two possible sources of oil located upgradient of the Navistar and BNR properties using the information gathered during the review of historical information. These sources consist of the former railroad roundhouse and turntable and the former and current oil storage tank located on the Iowa Interstate property to the south of the BNR property. Roundhouses and turntables were typically used for the repair and maintenance of railcars and locomotives. Based on Geraghty & Miller's review of historical aerial photographs and Sanborn fire insurance maps, there were apparently two to three times more repair bays at the former Rock Island Railroad roundhouse than the former BNR roundhouse.

The second potential source is the major leak in 1964 from Rock Island Railroad's former 150,000-gallon aboveground diesel fuel tank. A number of excavation sumps and trenches were installed in late 1964 and early 1965 along the northern boundary of the former Rock Island Railroad property to prevent the flow of diesel fuel to the Sylvan Slough (Moline Dispatch 1965). Diesel fuel was reportedly observed flowing into some of these trenches from a 30-inch thick soil stratum. Oil was also reportedly observed seeping into Sylvan Slough from a 1,000-foot section of the bank in a zone that extended from below the water surface to a point approximately 18 inches above the water surface (Giallombardo 1964). Although a recovery system was installed subsequent to the discovery of the spill, there is no information available regarding the effectiveness of the recovery system, the quantities of diesel fuel recovered, or any confirmatory soil or groundwater sampling.

5.0 SUBSURFACE SOIL INVESTIGATION

Based on Geraghty & Miller's review of previous environmental studies, regulatory agency files, historical site information (including aerial photographs and Sanborn fire insurance maps), and the site inspection, Geraghty & Miller performed a soil and groundwater investigation at the Navistar and BNR properties. Because there is an existing monitoring well network on the Navistar and QCIC properties north, east, and west of the BNR property, Geraghty & Miller's soil and groundwater investigation consisted of the completion of soil borings, installation of monitoring wells, and collection of soil and groundwater samples for laboratory analyses at the BNR property; and the collection of groundwater samples from the existing monitoring well network at the Navistar and QCIC properties. Monitoring wells were placed downgradient of the potential sources identified by Geraghty & Miller during the review of existing information and the site inspection tasks.

Geraghty & Miller advanced four soil borings (GM-1 through GM-4), to be completed as monitoring wells, along the southern boundary of the BNR property to evaluate whether releases from potential off-site sources, such as the former Rock Island Railroad roundhouse and/or former and current bulk petroleum storage areas, are migrating onto the BNR site. In addition, two soil borings, to be completed as monitoring wells, were advanced on the northern end of the BNR property, one downgradient of the concrete building foundation where the unknown pipe conduits were observed (GM-5) and the other downgradient of the former BNR roundhouse (GM-6). The locations of the soil borings/monitoring wells installed by Geraghty & Miller are depicted on Figure 5-1.

5.1 FIELD SAMPLING METHODOLOGY

The soil borings were advanced using a truck-mounted drill rig equipped with continuous flight, hollow-stem augers. Soil borings were completed to a depth of approximately 7 to 10 feet into the water table. All drilling work was supervised by a Geraghty & Miller field geologist and performed by Rock & Soil Drilling Corporation of St. Charles, Illinois. The drilling work was conducted on November 16 and 17, 1993.

Continuous split-spoon formation samples were collected and logged by a Geraghty & Miller field geologist from the surface to the water table. The logs include descriptions of the soil and notations on secondary features such as the presence of soil staining and odors. Copies of the soil boring logs are provided in Appendix A. The geologist also field screened the samples with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs). The field screening results were recorded on the boring logs. Based on the results of the field screening for VOCs, a minimum of one soil sample was collected from each boring location for laboratory analyses. Soil samples were placed directly from the split-spoon sampling device into the glass sampling jar provided by the laboratory such that there was no headspace, and then immediately placed in a cooler packed with ice.

Decontamination procedures were utilized to minimize the potential for cross-contamination between borings and individual sampling locations. The soil sampling equipment was cleaned with a non-phosphate detergent and distilled water solution and triple-rinsed with distilled water between samples. All downhole drilling equipment was steam-cleaned between boring locations.

5.2 SITE GEOLOGICAL SETTING

Based on a review of the boring logs (Appendix A), the soil stratigraphy at the BNR site appears to consist primarily of fine to coarse sands and silty sands, which are underlain by bedrock. Fragments of bedrock were encountered at a depth of approximately 14 feet below land surface (bls) in GM-1 and GM-2. The vadose zone soils (soils above the water table) were stained and exhibited a strong hydrocarbon (petroleum) odor from approximately 2 feet bls to the top of the water table. The strong hydrocarbon odor was further substantiated by the field screening results for VOC vapors, which were as high as 10,000 parts per million (ppm). In each of the borings completed on the BNR property, soil was encountered that was saturated with a hydrocarbon (petroleum) product.

The soils encountered at the BNR property appeared to be Mississippi River sand and gravel outwash deposits. The bedrock encountered at a depth of approximately 14 feet bls in GM-1 and GM-2 appeared to be limestone or shale of the Cedar Valley Formation. A review of the boring logs for the existing Pilko monitoring well network indicated that the sand and gravel outwash deposits appeared to be overlain by man-made fill materials, which consisted of black sands and cinders from the former Farmall foundry operation. No fill materials were encountered during Geraghty & Miller's investigation since none of the drilling operations took place on the Navistar property where the fill materials had been deposited.

5.3 SOIL ANALYTICAL RESULTS

Eight soil samples were collected for laboratory analyses from GM-1 through GM-6. A soil sample from the sampling interval immediately above the water table was submitted for laboratory analysis from each boring location along with one soil sample collected from 2 to 4 feet bls at GM-1 and GM-5. The soil samples were submitted to Analytical Technologies, Inc. (ATI) of Pensacola, Florida for chemical analyses under strict chain-of-custody. ATI participates in Geraghty & Miller's Analytical Quality Assurance/Laboratory Contract Program (AQA/LCP). Soil samples submitted to the laboratory were analyzed for VOCs using United States Environmental Protection Agency (USEPA) Method 8240; polynuclear aromatic hydrocarbons (PNAs) using USEPA Method 8310; polychlorinated biphenyls (PCBs) using USEPA Method 8080; and lead using the USEPA Toxicity Characteristic Leaching Procedure (TCLP). Table 5-1 summarizes the analytical results for the soil samples collected at the BNR site during the subsurface soil investigation. The complete set of analytical data for the subsurface soil investigation is provided in Appendix B.

Seven VOCs were detected in the subsurface soil samples collected during the Initial Site Investigation. The VOCs detected included acetone, benzene, 2-butanone (commonly known as methyl ethyl ketone [MEK]), ethylbenzene, methylene chloride, trichlorofluoromethane, and xylenes. Acetone, MEK, and methylene chloride are common laboratory contaminants while benzene, ethylbenzene, and xylenes are associated with petroleum products. The range of

concentrations (in milligrams per kilogram [mg/kg]) of VOCs detected in the subsurface soil at the BNR site is listed below. Frequency indicates the number of samples where each constituent was reported above the laboratory detection limit.

Constituent	Frequency[1]	Minimum Concentration	Maximum Concentration
Acetone	7 of 8	0.039 mg/kg in GM1-0204	0.260 mg/kg in GM2-1012
Benzene	1 of 8	0.002 mg/kg in GM5-0204	
2-Butanone (MEK)	3 of 8	0.022 mg/kg in GM5-0204	0.040 mg/kg in GM2-1012
Ethylbenzene	6 of 8	0.008 mg/kg in GM6-1012	0.016 mg/kg in GM4-1012
Methylene chloride	5 of 8	0.007 mg/kg in GM1-0204	0.033 mg/kg in GM5-0810
Trichlorofluoromethane	3 of 8	0.003 mg/kg in GM5-0204	0.009 mg/kg in GM2-1012
Xylenes, total	2 of 8	0.056 mg/kg in GM2-1012	0.088 mg/kg in GM1-0810

Ethylbenzene was detected at the top of the water table at each of the six well locations, while xylene was detected at the top of the water table only at GM-1 and GM-2. This result would appear to indicate that there is some type of petroleum product residual near the water table throughout the BNR property. Fluctuations in groundwater levels while a floating product layer is present results in a zone of soil at or near the water table that is "smeared" with residual product from the floating layer. Benzene was detected in GM-5 near the surface, indicating some type of "hot spot" surface contamination that was likely caused by either a surface spill or a residual from the water-table fluctuation that occurred during the 1993 Midwest Flood.

The remaining VOC constituents (acetone, MEK, methylene chloride, and trichlorofluoromethane) were detected at various locations throughout the BNR site, both near the surface and at the top of the water table. As discussed previously, acetone, MEK, and methylene chloride are common laboratory contaminants, while trichlorofluoromethane is a freon isomer. The lack of a set pattern for the detection of these VOCs suggests that their detection may be laboratory artifacts.

Detectable concentrations of PNAs were found in all eight of the soil samples submitted for laboratory analysis. The concentrations of PNAs detected in the six soil samples collected from the sampling interval immediately above the water table (one sample from each boring

location) were similar in magnitude (1.0 to 200 mg/kg), while the two soil samples collected near the surface were on the order of two to four orders of magnitude less (0.010 to 3.0 mg/kg).

The difference between the PNA concentrations detected near the surface with those detected near the water table is demonstrated in GM-1 and GM-5. For example, the PNA concentrations found at a depth of 2 to 4 feet bls in GM-5 ranges from a minimum of 0.051 mg/kg to a maximum of 3.0 mg/kg, while the PNA concentrations found above the water table at a depth of 8 to 10 feet bls in GM-5 ranges from a minimum concentration of 2.0 mg/kg to a maximum of 200 mg/kg. The substantially higher PNA concentrations detected near the water table compared to those detected in the upper portion of the vadose zone supports the scenario of a floating hydrocarbon product layer.

The final two constituents for which the soil samples were analyzed by the laboratory were PCBs and lead. PCBs were detected in only one of the eight soil samples while lead was detected in two of the eight samples. PCB Aroclor-1248 was detected in GM-5 at a depth of 2 to 4 feet bls, at a concentration of 0.45 mg/kg. Lead was detected only in the two soil samples collected at GM-5, at concentrations of 1.1 mg/kg at a depth of 2 to 4 feet bls and 3.5 mg/kg at a depth of 8 to 10 feet bls.

6.0 GROUNDWATER INVESTIGATION

Geraghty & Miller installed six groundwater monitoring wells on the BNR property to supplement the existing monitoring well network on the Navistar property. The investigation was performed to provide an initial indication of the nature and extent of any groundwater contamination that may exist. The monitoring well locations were selected based on the potential sources identified by Geraghty & Miller at the BNR property and at the Iowa Interstate property located to the south. Four of the six monitoring wells (GM-1 through GM-4) were placed along the southern property boundary to evaluate whether any affected groundwater was migrating onto the BNR property from the Iowa Interstate (former Rock Island Railroad) property. The remaining two monitoring wells (GM-5 and GM-6) were situated along the northern BNR property boundary downgradient of the concrete building foundation (GM-5) and the former BNR roundhouse location (GM-6).

6.1 WELL CONSTRUCTION AND SAMPLING METHODOLOGY

Six monitoring wells were installed on the BNR property as part of Geraghty & Miller's field investigation on November 16 and 17, 1993. The borings for each monitoring well were advanced using a truck-mounted drill rig equipped with continuous flight, hollow-stem augers. The borings for each monitoring well location were advanced to a depth of approximately 7 feet into the saturated zone. The field procedures used for borehole advancement, soil sampling, selection of samples for laboratory analyses, and decontamination are described in Section 5.1 (Field Sampling Methodology) of this report. The sample/core logs for the six monitoring well locations are provided in Appendix A.

The monitoring wells were constructed with 2-inch inside diameter, flush-joint threaded, schedule 40 polyvinyl chloride (PVC) riser pipe and 10 slot (0.01 inch), factory-cut, stainless-steel, 10-foot well screens. The monitoring wells were installed such that the well screens were 2 to 3 feet above the current water level to account for the fluctuation of the water table. The well screens were surrounded by a coarse sand pack extending from approximately 6 inches below the base of the well screen to approximately 2 feet above the top of the screen. A

granular bentonite seal was placed over the sand pack to approximately 2 feet bls followed by a concrete seal. A steel, outer protective well casing was placed over each monitoring well upon completion. Well construction logs are provided in Appendix C.

Following completion of the monitoring well installation, a water-level measurement was taken for each well using an electronic water-level indicator. Each well was then developed by evacuating approximately three to five well volumes with a dedicated, disposable bailer. The BNR monitoring wells were developed by Geraghty & Miller on November 17 and 18, 1993. The well development logs are provided in Appendix D. After the well development was complete, the wells were allowed to equilibrate prior to groundwater sampling.

Geraghty & Miller returned to the Navistar and BNR properties to conduct groundwater sampling on November 30 and December 1, 1993. Groundwater samples were collected for laboratory analyses from each BNR monitoring well (GM-1 through GM-6), as well as from the existing Navistar monitoring well network (MW-5 through MW-10), which is located west of the QCIC buildings. Geraghty & Miller was unable to collect groundwater samples from Navistar wells MW-7 and MW-10 due to damage to the outer well casings.

Prior to collecting a sample from each monitoring well, Geraghty & Miller used an oil/water interface probe to record the water level and to determine whether any free product was evident. A 0.03-foot layer of product was measured at the top of the water table in GM-4, GM-5, and MW-6, while a 3.10-foot layer of product was measured in MW-9; no free product was evident in the remaining monitoring wells that were sampled (GM-1, GM-2, GM-3, GM-6, MW-5, and MW-8). Due to the 3.10-foot layer of product evident in MW-9, a groundwater sample was not collected for laboratory analysis.

Approximately three well volumes were purged from each monitoring well prior to groundwater sampling with a dedicated, disposable bailer. Because MW-6 was bailed dry after evacuating one well volume, the groundwater sample was collected after the well recovered. Geraghty & Miller took field measurements of pH, temperature, and conductivity after each well

volume was purged. The sample containers provided by the laboratory were filled at each well location directly from the disposable bailer. The groundwater samples were then immediately placed in a cooler packed with ice. For quality assurance/quality control (QA/QC) purposes, Geraghty & Miller collected a duplicate groundwater sample from GM-5. Water sampling logs are provided in Appendix E.

6.2 SITE HYDROGEOLOGY

As discussed in Section 5.2 (Site Geologic Setting) of this report, the soils encountered at the BNR property appear to be Mississippi River sand and gravel outwash deposits, which overlie bedrock of the Cedar Valley Formation. Bedrock was encountered at a depth of approximately 14 feet bls at GM-1 and GM-2. Based on a review of the boring logs for the Pilko monitoring well network, the sand and gravel outwash deposits appear to be overlain by man-made fill material.

The hydraulic conductivity of the subsurface formation into which the monitoring wells were installed was evaluated by performing slug tests at selected monitoring well locations (GM-1, GM-2, and GM-6). The slug test locations were selected based on the lack of free product and their relative location such that a representative reading was obtained across the length of the site. The data obtained during the slug tests were analyzed by the Hvorslev and/or Bouwer & Rice methods to calculate hydraulic conductivity values. The hydraulic conductivity value (K) for the BNR site ranged from a minimum of 4.1×10^{-4} cm/sec at GM-6 to a maximum of 2.8×10^{-2} cm/sec at GM-1. The hydraulic conductivity values demonstrated at the BNR property are consistent with those that would be expected for soils consisting of sands and gravels. The slug test data are provided in Appendix F.

Geraghty & Miller contracted Beling Consultants (Beling) of Moline, Illinois to survey the elevation of the top of the inner casing at each monitoring well location. Beling used a permanent United States Geological Survey (USGS) benchmark located on the west face of the former Rock Island Railroad baggage room to the south of the Navistar and BNR properties.

The elevations of the top of the inner casing at each monitoring well location relative to the USGS standard elevation are provided in Table 6-1.

Two rounds of water-level data were collected by Geraghty & Miller. The first round was collected on November 30, 1993 prior to groundwater sampling and the second on December 21, 1993 prior to slug testing. Groundwater was encountered at an average depth of approximately 12 feet bls across the BNR property and 17 feet bls across the Navistar property, both of which appear to be consistent with the water surface of the Mississippi River.

Using the survey data and water-level measurements, Geraghty & Miller prepared Figure 6-1, which provides groundwater table elevation information. Based on the water levels shown on Figure 6-1, a discernable groundwater flow direction is not apparent. Generally, Geraghty & Miller would expect that groundwater flows across the BNR and Navistar properties to the north-northwest, a flow direction consistent with the location of the Sylvan Slough and the prevailing current of the river. The general groundwater flow towards Sylvan Slough was evident during Pilko's 1989 groundwater sampling effort (Pilko & Associates, Inc. 1989).

The disruption of the localized groundwater flow system is likely due to the surcharging of the groundwater system caused by the 1993 Midwest Flood. Generally, the groundwater system will lag behind the surface-water system until the reestablishment of equilibrium conditions. The consistent drop in the water levels at each monitoring well location between the November 30, 1993 and December 21, 1993 water-table elevation measurements is likely evidence supporting the fact that the groundwater system has yet to reach a state of equilibrium.

6.3 GROUNDWATER ANALYTICAL RESULTS

The groundwater samples were submitted to the laboratory under strict chain-of-custody at the end of each day of field sampling. Groundwater sample analyses were performed by ATI. Groundwater samples were analyzed for VOCs using USEPA Method 8240; PNAs using USEPA Method 8310;, and lead using USEPA Method 6010. Groundwater samples submitted to the

laboratory for lead analysis were filtered in the field. A summary of the groundwater data is presented in Table 6-2. The complete set of groundwater analytical data is provided in Appendix G.

Two VOCs were detected in the groundwater samples collected during the Initial Site Investigation. The VOCs detected were acetone, a common laboratory contaminant, and benzene. Acetone was detected in GM-1 (0.017 milligrams per liter [mg/L]), GM-3 (0.014 mg/L), GM-4 (0.013 mg/L), and MW-6 (0.017 mg/L). Benzene, a common petroleum-related contaminant, was detected only in GM-5 at a concentration of 0.003 mg/L. However, the duplicate groundwater sample of GM-5, designated as GM-0, reported benzene below the laboratory detection limit.

PNA concentrations were detected at each monitoring well location except for MW-8. The presence of PNAs in the groundwater was expected based on the visual contamination evident during the boring completion activities and the measurable thickness of product evident in GM-4, GM-5, MW-6, and MW-9. The PNAs detected in GM-1, GM-5, GM-6, and MW-6 are an order of magnitude higher than those detected in GM-2, GM-3, GM-4, and MW-5. The monitoring wells with the higher concentrations of PNAs are all located within the area defined by the monitoring wells with a measurable layer of free product (GM-4, GM-5, MW-6, and MW-9). The only notable exception is GM-4, where the concentrations of PNAs were an order of magnitude less than those wells exhibiting the higher concentrations even though there was a measurable layer of hydrocarbons.

PCBs were detected at a concentration of 0.001 mg/L in GM-5. PCBs were not detected at any other monitoring well location. In fact, PCBs were reported below the laboratory detection limit of the duplicate groundwater sample collected from GM-5 (GM-0). Lead was not detected at any monitoring well location.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this Initial Site Investigation, Geraghty & Miller concludes that the discharge of impacted groundwater may be the most likely source of the oil seeping into Sylvan Slough. Under normal conditions, Geraghty & Miller would expect groundwater to flow from the Iowa Interstate property across the BNR and Navistar properties to the north-northwest, and discharge into the Sylvan Slough. This section of the Sylvan Slough where the groundwater would be expected to discharge is one of the sources of recent complaints to the IEPA and has been identified as being located approximately 600 feet upstream of the Iowa Interstate Railroad (Rock Island Railroad) bridge and several hundred feet downstream of the 44th Street outfall and of the outfall located immediately downgradient of the former Midway Oil Company site (Outfall 001).

A periodic oily discharge exhibiting a strong fuel oil odor reportedly seeps from the stream bank from an apparent outfall or the bank along Sylvan Slough located approximately 600 feet upstream of the Iowa Interstate Railroad bridge. A plume of oil was noted in this area on the surface of Sylvan Slough along the shoreline during a September 24, 1992 IEPA site inspection. Location of this plume would be consistent with Geraghty & Miller's expectations that the impacted groundwater and floating free-product layer underlying the BNR and Navistar properties are discharging to the Sylvan Slough.

The most significant groundwater plume appears to be centered about GM-4, GM-5, GM-6, MW-6, and MW-9 where free product was evident and the highest PNA concentrations were detected. This area is located adjacent to the area of the observed discharges to Sylvan Slough approximately 600 feet upstream of the railroad bridge. A floating product layer with thicknesses of 0.03 to 3.1 feet was observed on the water table at GM-4, GM-5, MW-6, and MW-9. Based on the results of the groundwater sampling, MW-8 appears to be located outside of the plume.

The results of Geraghty & Miller's groundwater analyses are comparable to the results of the previous groundwater sampling performed by Pilko at the Navistar and QCIC properties

(Pilko & Associates, Inc. 1989, 1992, 1993). The highest concentration of petroleum hydrocarbons detected by Pilko in the subsurface soil is defined by MW-5, MW-6, MW-9, and MW-10 (Pilko & Associates, Inc. 1993). Pilko also noted a floating layer of hydrocarbons in this area, which is consistent with the location of the floating layer of free product observed by Geraghty & Miller during the recent groundwater sampling event. Although the specific laboratory analyses conducted by Pilko differed slightly from those performed by ATI for Geraghty & Miller, the analytical results are essentially the same, with concentrations of various hydrocarbon (petroleum) related compounds being reported in excess of the laboratory detection limits.

In addition to the discharge of impacted groundwater, an old sewer outfall to the Sylvan Slough was shown on old building plans on the site now owned by BNR, and this outfall could represent another conduit for the discharge of impacted groundwater and floating product. The USCG and City of Rock Island found the location of the old sewer system on the BNR property. Oily odors were reportedly evident in three of the four manholes and oil was evident in two of the four manholes. The manholes are adjacent to the location of the former BNR roundhouse facility.

Based on the expected direction of groundwater flow, the presence of PNA contamination in GM-1, GM-2, GM-3, and GM-4 indicates an upgradient source. The implicated upgradient source is the 1964 release of an estimated tens of thousands of gallons of diesel fuel from the former Rock Island Railroad storage tank. The concentrations of PNAs, the presence of free product in the upgradient wells (e.g., GM-4) during groundwater sampling, and documentation describing a major petroleum spill event occurring in 1964 indicate the following source scenario:

1. A major upgradient source has resulted in a petroleum contaminant plume that has migrated beneath the Navistar and BNR properties; and,

2. Several minor off-site and on-site contaminant sources that have likely contributed to the petroleum contaminant plume that has migrated beneath the Navistar and BNR properties.

Due to the large quantities of oil observed at the BNR and Navistar sites, the soil staining and soil sampling results that indicate a hydrocarbon "smear" zone across the BNR property, the visible free product observed floating on the water table, and the documented large scale release of diesel fuel on the property located in the expected upgradient direction of the site, it is recommended that investigations be expanded to include the Iowa Interstate Railroad property.

Review of site files indicates that several upstream sources may be contributing to the release of oil into the Sylvan Slough. Source areas identified include any sewer lines associated with the 72-inch City of Rock Island storm sewer and the 44th Street outfall; any sewer lines leading to outfalls 001, 003, 004, 008, and 009 on the former Farmall site; the UST discharge area near Building 42 on the former Farmall site; the small tributary to the Sylvan Slough located 600 feet downstream of the 44th Street outfall; oil seepage areas observed on the former Midway Oil Company site; and an area of petroleum-impacted soil on the east side of the QCIC site near the former Midway property. Complete characterization of the area should, at a minimum, include investigation of these sites.

Before proceeding with additional site characterization, Geraghty & Miller recommends that BNR and Navistar contact either (or both) the Iowa Interstate Railroad or Rock Island Railroad to inform them of the results of the Initial Site Investigation. The extent of contamination that exists upgradient of the BNR and Navistar properties can not be evaluated without some type of working arrangement to allow access to the Iowa Interstate Railroad property.

Until such an arrangement is reached with the Iowa Interstate Railroad and/or the Rock Island Railroad, the only additional site characterization work that should be completed at this time would be the placement of additional monitoring wells to the east in order to define the

east-west lateral extent of hydrocarbon-impacted groundwater. The western edge of the plume appears to be defined by MW-8, where no PNA concentrations above the laboratory detection limits were reported.

Geraghty & Miller also recommends continued measurements of the water-table elevations and floating product layer thicknesses at each monitoring well location on a monthly basis to monitor the groundwater flow direction. Frequent water-table elevation measurements would allow Geraghty & Miller to monitor the local groundwater flow direction as the groundwater system continues to equilibrate subsequent to the 1993 Midwest Flood.

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TABLES

Table 5-1. Subsurface Soil Data
Navistar/BNR Property, Rock Island, Illinois

Constituent	*GM1-0204*	*GM1-0810*	*GM2-1012*	*GM3-1012*	*GM4-1012*	*GM5-0204*	*GM5-0810*	*GM6-1012*
VOCs/8240 (mg/kg)								
Acetone	0.039	0.084	0.26	0.077		0.12	0.23	0.20
Benzene						0.002		
2-Butanone (MEK)			0.04			0.022		0.037
Ethylbenzene		0.013	0.011	0.013	0.016		0.01	0.008
Methylene chloride	0.007	0.028		0.027			0.033	0.031
Trichlorofluoromethane			0.009			0.003		0.007
Xylenes, total		0.088	0.056					
PNAs/8310 (mg/kg)								
Acenaphthene	0.077					3.0		
Acenaphthylene		24		21	17	0.95	63	48
Anthracene		7.1	16	10	5.0	0.17	11	18
Benzo(a)anthracene		8.5	18	8.1	7.8	0.49	13	15
Benzo(a)pyrene		4.1	8.5	3.0	3.7		3.3	8.2
Benzo(b)fluoranthene		2.9	8.0	7.2	5.2	0.67	5.7	14
Benzo(ghi)perylene						0.60		
Benzo(k)fluoranthene		6.5	15		2.8	0.26	2.0	5.0
Chrysene		3.9	13	6.3	3.9	0.17	9.1	9.6
Dibenzo(ah)anthracene					5.2	1.8		
Fluoranthene	0.015	52		120	98	1.9	200	110
Fluorene	0.016	31	77	28	19	0.46	48	54
Indeno(123-cd)pyrene						0.41		
Naphthalene	0.011	1.6	12			0.051		
Phenanthrene	0.011	10	86	8.3	24	0.39	59	16
Pyrene		59	150	64	58	1.7	110	120
Other Noncarcinogenic PN	0.011	34	86	29.3	41	1.94	122	64
PCBs (mg/kg)								
Aroclor-1248						0.45		
Metals/TCLP (mg/L)								
Lead						1.1	3.5	

Table 5-1. Subsurface Soil Data
Navistar/BNR Property, Rock Island, Illinois

Notes:

1. "VOCs" indicate volatile organic compounds.
2. "PNAs" indicate polynuclear aromatic hydrocarbons.
3. "PCBs" indicate polychlorinated biphenyls.
4. "TCLP" indicates the Toxicity Characteristic Leaching Procedure.
5. VOCs, PNAs, and PCBs are reported in milligrams per kilogram (mg/kg).
6. Metal (lead) concentrations are reported in milligrams per liter (mg/L).
7. A blank space indicates that the constituent concentration was reported below the laboratory detection limit.
8. The Class I soil cleanup objectives consist of Illinois Class I groundwater standards and Illinois recommended baseline cleanup objectives for s at non-LUST (Leaking Underground Storage Tank), petroleum-contaminated sites.

C10299.002\NAVISTAR\SOIL.WK1 - jpw

Table 6–2. Groundwater Data
Navistar/BNR Property, Rock Island, Illinois

Constituent	*GM-1*	*GM-2*	*GM-3*	*GM-4*	*GM-5*	*GM-6*	*MW-5*	*MW-6*	*MW-8*	*GM-0*
VOCs/8240 (mg/L)										
Acetone	0.017		0.014	0.013				0.017		
Benzene					0.003					
PNAs/8310 (mg/L)										
Acenaphthene										
Acenaphthylene	1.3	0.13	0.27	0.31	0.73	0.48	0.12	1.3		0.31
Anthracene	0.58	0.013	0.013	0.026	0.16	0.12	0.008	0.5		0.016
Benzo(a)anthracene	0.46	0.015	0.013	0.026	0.17	0.11	0.01	0.68		0.014
Benzo(a)pyrene		0.006	0.003	0.012			0.006	0.63		
Benzo(b)fluoranthene	0.2	0.02	0.015	0.037	0.3	0.21		1.1		
Benzo(ghi)perylene		0.001		0.002				0.29		
Benzo(k)fluoranthene	0.18	0.007	0.005	0.017			0.003	0.5		
Chrysene	0.26	0.023	0.011	0.046	0.25	0.25		1.3		0.009
Dibenzo(ah)anthracene		0.018						1.5		
Fluoranthene	2.9	0.22	0.17	0.39	2.4	1.6	0.12	8.1		
Fluorene	0.82	0.079	0.089	0.13	0.84	0.54	0.056	2		0.17
Indeno(123-cd)pyrene		0.001		0.002				0.18		
Naphthalene										
Phenanthrene	1.6	0.073	0.071	0.13	0.84	0.57	0.049	2.2		0.077
Pyrene	2	0.12	0.08	0.25	1.8	1.1	0.07	6		0.13
1-Methylnaphthalene	2.4	0.39	0.31	0.55	3.4	2	0.53	6.6	0.023	0.54
2-Methylnaphthalene	1.1	0.16	0.23	0.25	1.4	0.85		2.5	0.006	0.26
Other Noncarcinogenic PN	2.9	0.204	0.341	0.442	1.57	1.05	0.169	3.79	0	0.387
PCBs (mg/L)										
Aroclor-1254					0.001					
Metals (mg/L)										
Lead										

Table 6–2. Groundwater Data
Navistar/BNR Property, Rock Island, Illinois

Notes:

1. "VOCs" indicate volatile organic compounds.
2. "PNAs" indicate polynuclear aromatic hydrocarbons.
3. "PCBs" indicate polychlorinated biphenyls.
4. GM-0 is a duplicate groundwater sample of GM-5.
5. All concentrations are reported in milligrams per liter (mg/L).
6. A blank space indicates that the constituent concentration was reported below the laboratory detection limit.
7. The Class I groundwater cleanup objectives consist of Illinois Class I groundwater standards and Illinois recommended baseline cleanup objectives for groundwater at non-LUST (Leaking Underground Storage Tank), petroleum-contaminated sites.

C10299.002\NAVISTAR\GWDATA WK1\jp

FIGURES

SOURCE: USGS 7.5 MIN. TOPOGRAPHIC MAP, DAVENPORT EAST, IOWA–ILLINOIS QUADRANGLE, 1991.

GERAGHTY & MILLER, INC.
Environmental Services

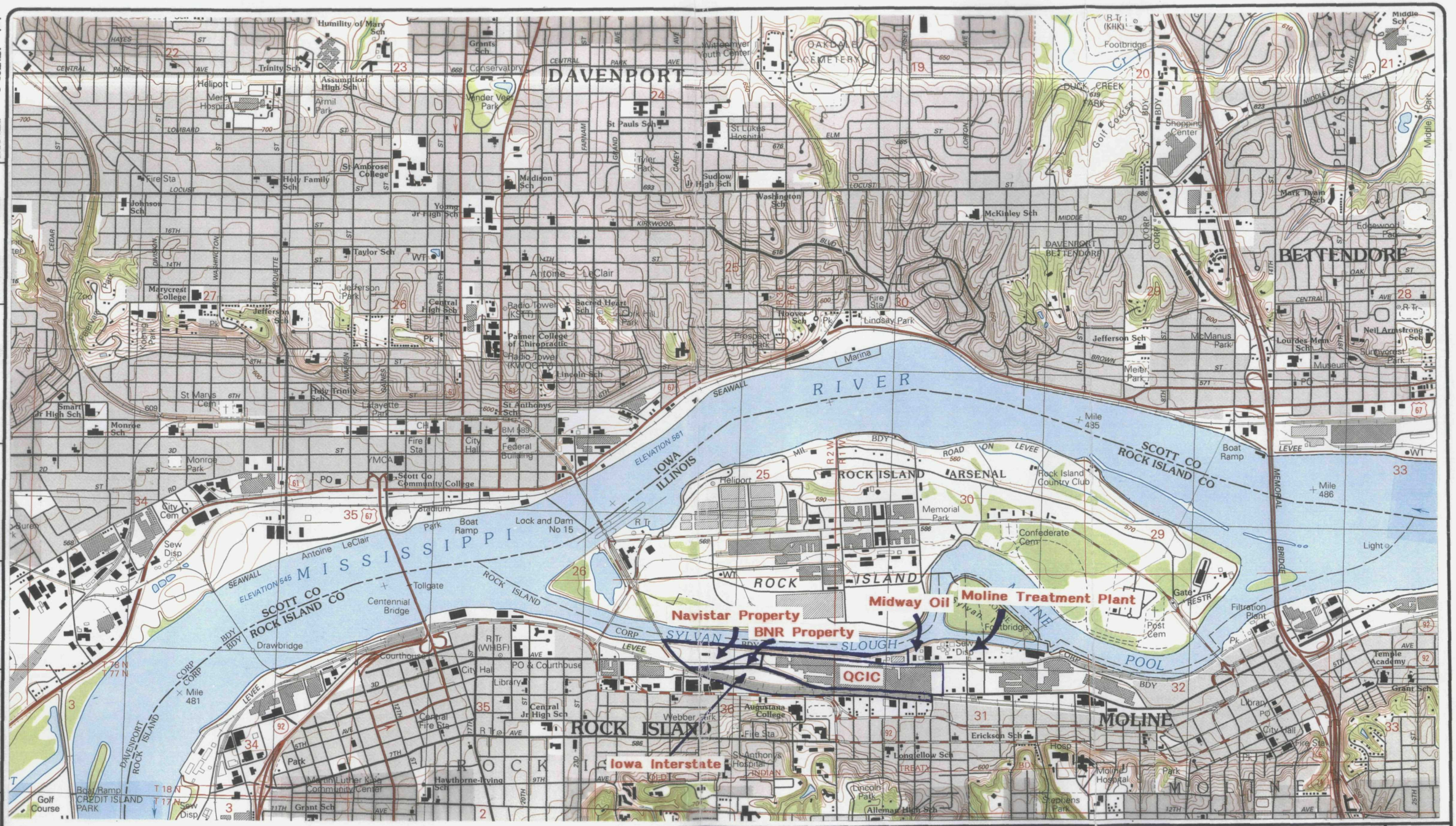
SITE LOCATION MAP

INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN
RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

FIGURE
2-1

DWG DATE: 1/18/94 | PRJCT NO.: CI0299.002 | FILE NO.: NON-CAD | DRAWING:CI29902-FIG2-1 | CHECKED: J AUER | APPROVED: J AUER | DRAFTER: S GOZNER 1=1

DWG DATE: 2/25/94 | PRJCT NO.: CI0299.002 | FILE NO.: NON-CAD | DRAWING:CI299002-FIG2-2| CHECKED: J AUER | APPROVED: J AUER | DRAFTER: S GOZNER 1=1



SOURCE: USGS 7.5 MIN. TOPOGRAPHIC MAP, DAVENPORT EAST, IOWA–ILLINOIS QUADRANGLE, 1991.

GERAGHTY & MILLER, INC.
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SITE LAYOUT/SURROUNDING LAND USE MAP
INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

FIGURE
2-2

GERAGHTY & MILLER, INC.
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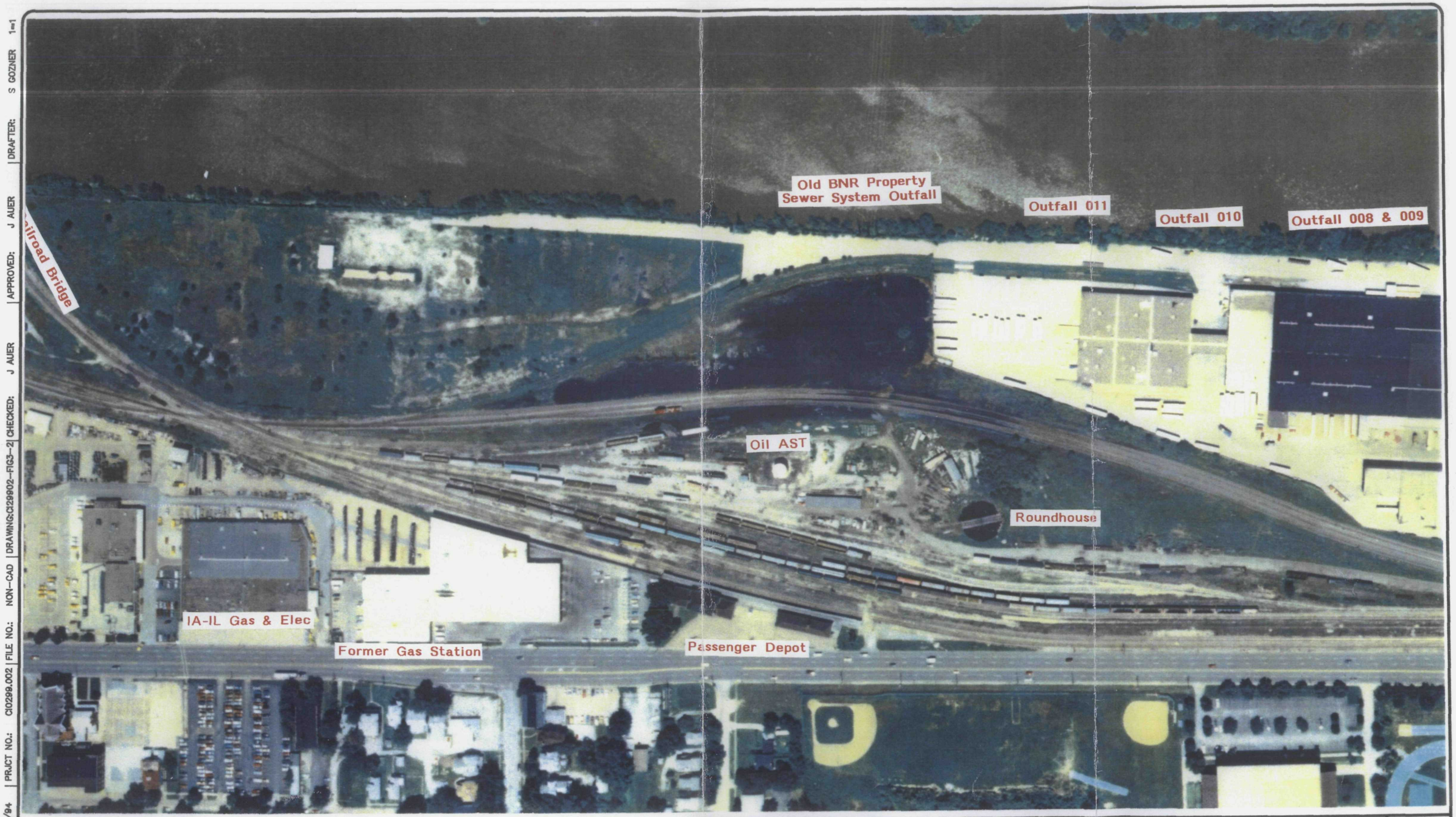
OUTFALL LOCATION MAP
(EASTERN HALF OF FARMALL SITE)
INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

FIGURE
3-1

DWG DATE: 2/25/94 | PRJCT NO.: CI0299.002 | FILE NO.: NON-CAD | DRAWING:CI299902-FIG3-1 | CHECKED: J AUER | APPROVED: J AUER | DRAFTER: S GOZNER 1=1



GERAGHTY & MILLER, INC.
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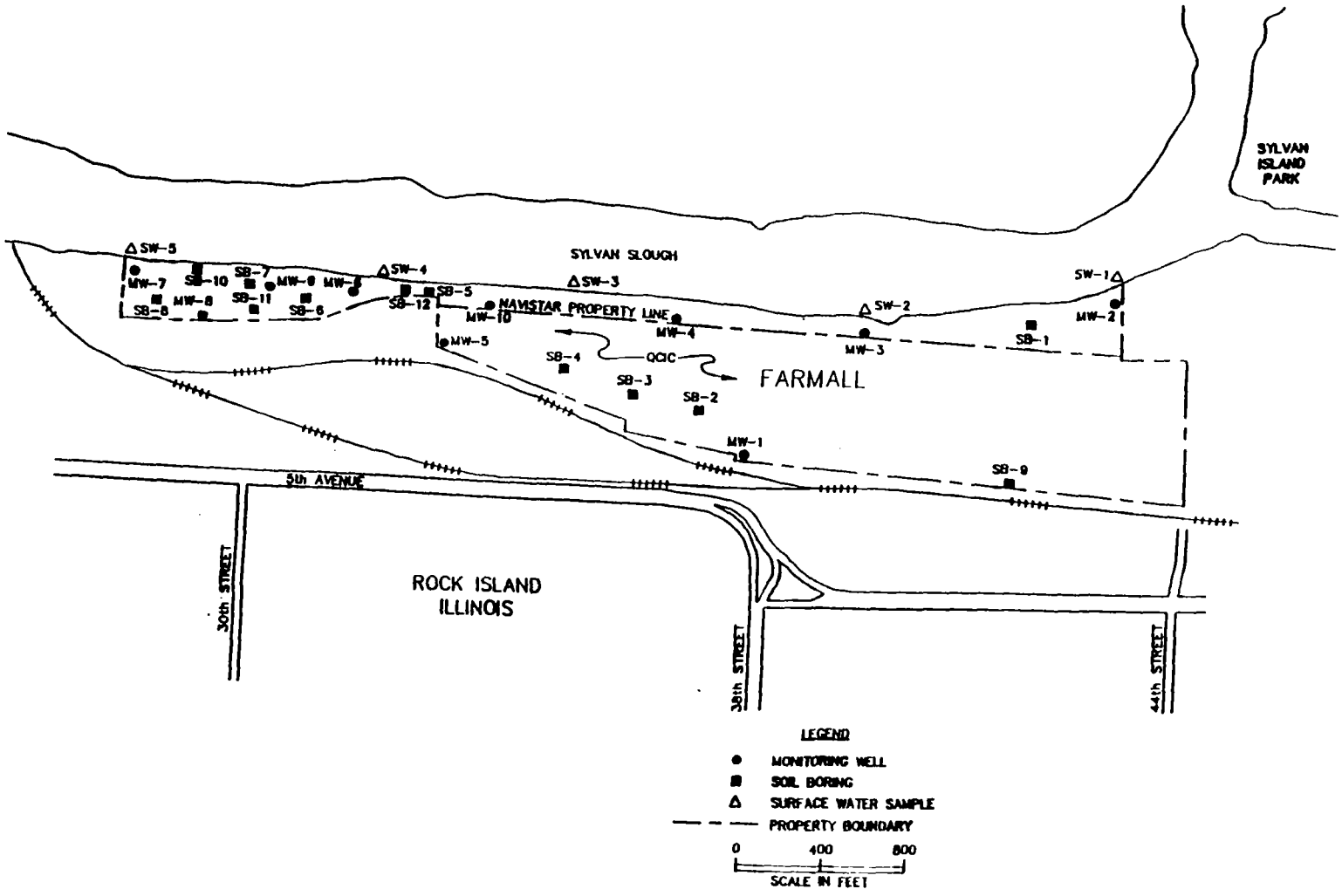
OUTFALL LOCATION MAP
(WESTERN HALF OF FARMALL SITE)
INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

FIGURE
3-2

DWG DATE: 2/25/94 | PRJCT NO.: C10298.002 | FILE NO.: NON-CAD | DRAWING:C10298O2-FIG3-2 | CHECKED: J AUER | APPROVED: J AUER | DRAFTER: S GOZNER 1=1

DWG DATE: 2/25/94	PRJCT NO.: C10299.002	FILE NO.: NON-CAD	DRAWING:C129902-FIG3-3	CHECKED: J AUER	APPROVED: J AUER	DRAFTER: S GOZNER	1=1



SOURCE: PILKO & ASSOCIATES, INC., SOILS AND GROUNDWATER INVESTIGATION, FARMALL, ROCK ISLAND, ILLINOIS, JUNE, 1989.

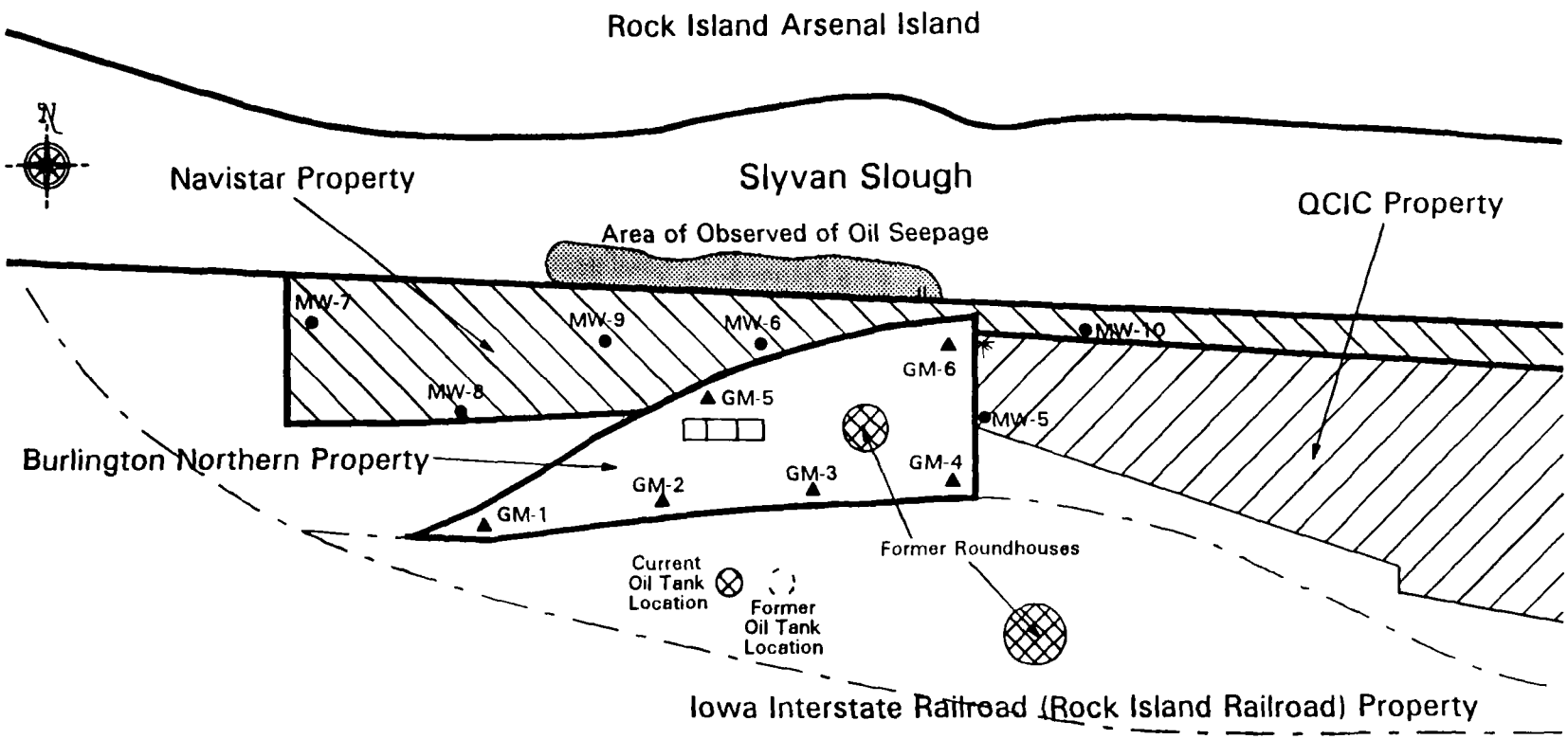
GERAGHTY & MILLER, INC.
Environmental Services

PILKO SOIL BORING/MONITORING WELL LOCATIONS

INITIAL SITE INVESTIGATION REPORT
NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES
ROCK ISLAND, ILLINOIS

FIGURE
3-3

DWG DATE: 1/18/94	PRJCT NO.: CI0299.002	FILE NO.: NON-CAD	DRAWING:CI29902-FIG5-1	CHECKED: J AUER	APPROVED: J AUER	DRAFTER: S GOZNER 1-1



LEGEND

- ● MW-7 Pilko Monitoring Well Location
- ▲ GM-2 Geraghty & Miller Monitoring Well Location
- —— - Railroad Line

0 400 800

Scale in Feet (Approximate)

GERAGHTY & MILLER, INC.
Environmental Services

NAVISTAR/BURLINGTON NORTHERN RR MONITORING WELL LOCATION MAP

INITIAL SITE INVESTIGATION REPORT

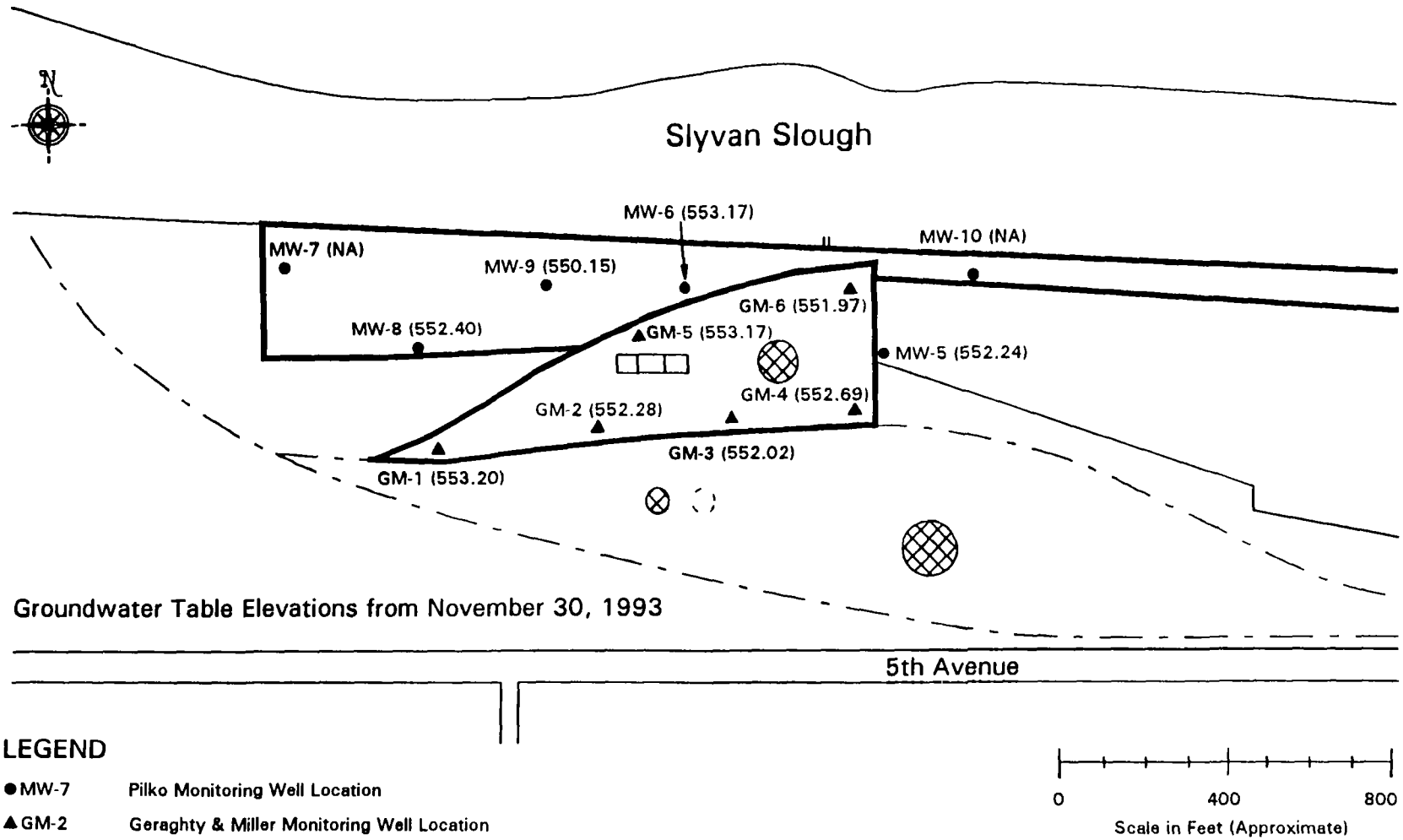
NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES

ROCK ISLAND, ILLINOIS

FIGURE

5-1

DWG DATE: 1/18/94	PRJCT NO.: C10299.002	FILE NO.: NON-CAD	DRAWING:C129902-FIG6-1	CHECKED: J AUER	APPROVED: J AUER	DRAFTER: S GOZNER 1=1



LEGEND

● MW-7	Pilko Monitoring Well Location
▲ GM-2	Geraghty & Miller Monitoring Well Location
(553.20)	Water Table Elevation (in feet above mean sea level)
(NA)	No Water Table Elevation Measurement Available
—— –	Railroad Line

0 400 800

Scale in Feet (Approximate)

GERAGHTY & MILLER, INC.
Environmental Services

GROUNDWATER ELEVATION DATA MAP

INITIAL SITE INVESTIGATION REPORT

NAVISTAR/BURLINGTON NORTHERN RAILROAD PROPERTIES

ROCK ISLAND, ILLINOIS

FIGURE

6-1

Appendix A

Soil Boring Logs

SAMPLE/CORE LOG

Boring/Well GM-1 Project/No. CI0299.002 Page 1 of 2

Site Location BNR/NAVISTAR Drilling Started 11/16/93 Drilling Complete 11/16/93

Total Depth Drilled 19 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2' x 2" Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used none Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller Mike Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	1.8	3,5,8,9	0-0.4 Black silt with coal or ash cinders	0
				0.4-0.5 Dark brown silty sand	
				0.5-1.5 Dark brown silty sand with cinders	
				1.5-2.0 Medium brown poorly graded sand with trace silt	
2	4	1.7	5,6,8,8	0-0.3 Medium brown poorly graded sand with trace silt	0
				0.3-0.4 Light brown very fine sand with some silt	
				0.4-1.7 Medium brown poorly graded sand with trace silt	
4	6	1.7	5,5,5,6	0-0.5 Medium brown poorly graded sand with trace silt	100
				0.5-1.7 Grayish black poorly graded sand, odor, product coating on sand grains	
6	8	1.7	3,4,3,4	0-0.2 Black poorly graded sand with trace silt, saturated with product (diesel odor)	10,000
				0.2-0.25 Gray silt seam	
				0.25-1.7 Grayish black well graded sand, saturated with product	

SAMPLE/CORE LOG

Boring/Well GM-1

Prepared By Stephen J. Hjort

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
8	10	1.8	3,3,2,2	0-1.0 Grayish black well graded sand, saturated with product 1.0-1.4 Black silty sand, saturated with product 1.4-1.45 Grayish black silty sand, saturated with product 1.45-1.75 Grayish black poorly graded sand with trace silt 1.75-1.8 Grayish brown silty clay, saturated with product	10,000
10	12	1.3	2,1,1,5	0-0.2 Grayish black poorly graded sand with trace silt, saturated with product 0.2-0.3 Grayish brown clayey silt, saturated with product 0.3-0.6 Grayish black poorly graded sand with trace silt, saturated with product 0.6-1.3 Black alternating layers of silty sand and silt saturated with product	10,000
12	14	1.0	13,5,7,10	0-1.0 Black alternating layers of silty sand and silt, saturated with product, WET (water table) with angular limestone pieces	
14	19			Blind drill End of Boring at 19'	

SAMPLE/CORE LOG

Boring/Well GM-2 Project/No. CI0299.002 Page 1 of 2

Site Location BNR/NAVISTAR Drilling Started 11/16/93 Drilling Complete 11/16/93

Total Depth Drilled 19 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2' x 2' Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used none Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller Mike Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	1.8	5,6,8,8	0-0.4 Black silt with cinder	0
				0.4-1.1 Brown cinders with some silt	
				1.1-1.8 Medium brown poorly graded sand with trace silt	
2	4	1.5	7,5,5,5	0-0.9 Medium brown poorly graded sand with trace silt	150
				0.9-1.2 Grayish black poorly graded sand with silt, saturated with product	
				1.2-1.5 Black poorly graded sand with trace silt, saturated with product	
4	6	1.6	5,5,5,4	0-0.2 Black poorly graded sand with trace silt, saturated with product	450
				0.2-0.5 Grayish black poorly graded sand with trace silt, saturated with product	
				0.5-1.6 Alternating layers of poorly graded sand and silty sand, saturated with product	
6	8	1.5	5,3,3,4	0-1.2 Grayish black poorly graded sand with 2 cm silt seams from 1.0-1.2, saturated with product	700
				1.2-1.5 Black poorly graded sand with little pebble size gravel, saturated with product	

SAMPLE/CORE LOG

Boring/Well **GM-2**

Prepared By **Stephen J. Hjort**

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
8	10	1.4	4,6,5,3	0-1.0 Gray well graded coarse sand, saturated with product	1700
				1.0-1.4 Grayish black poorly graded sand very fine to coarse, saturated with product	
10	12	1.2	2,1,2,2	0-0.3 Grayish black poorly graded sand very fine to coarse, saturated with product	9,000
				0.3-0.5 Black poorly graded sand, saturated with product	
				0.5-0.6 Black silty clay, saturated with product	
				0.6-1.2 Black silty sand with some gravel, saturated with product	
12	14	1.0	12,8,18,11	0-0.3 Black silty sand and gravel, saturated with with product, WET	
				0.3-1.0 Black silty sand with limestone chips, saturated with product, WET	
14	19			Blind drill	
				End of Boring at 19'	

SAMPLE/CORE LOG

Boring/Well GM-3 Project/No. CI0299.002 Page 1 of 2

Site Location BNR/NAVISTAR Drilling Started 11/16/93 Drilling Complete 11/16/93

Total Depth Drilled 18 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2" x 2" Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used none Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller Mike Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	2.0	5,4,5,6	0-0.3 Black silt with cinders	0
				0.3-0.7 Medium brown poorly graded sand with trace silt	
				0.7-2.0 Alternating layers of tan silt and medium brown silty sand	
2	4	1.7	5,3,2,1	0-0.8 Alternating layers of tan silt and medium brown silty sand	200
				0.8-1.7 Black and grayish black alternating layers of silt and silty sand, saturated with product	
4	6	1.3	4,3,1,2	0-0.1 Black and grayish black alternating layers of silt and silty sand, saturated with product	250
				0.1-1.3 Grayish black poorly graded sand with trace silt, saturated with product	
6	8	1.3	5,2,2,3	0-1.3 Grayish black poorly graded sand with trace silt, saturated with product	450
8	10	1.4	3,2,2,2	0-1.4 Grayish black poorly graded sand with trace silt, saturated with product	250
10	12	1.7	3,1,1,2	0-0.8 Grayish black poorly graded sand with trace silt with more coarse sand, saturated with product	2,000
				0.8-1.7 Grayish black poorly graded sand, saturated with product, WET	

SAMPLE/CORE LOG

Boring/Well GM-3

Prepared By Stephen J. Hjort

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
12	14	1.6	1,1,10,9	0-0.6 Grayish black poorly graded sand, saturated with product, WET 0.6-1.6 Black silty sand and gravel, WET, saturated with product	
14	18			Blind drill *End of Boring at 18'*	

SAMPLE/CORE LOG

Boring/Well GM-4 Project/No. CI0299.002 Page 1 of 1

Site Location BNR/NAVISTAR Drilling Started 11/16/93 Drilling Complete 11/16/93

Total Depth Drilled 18 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2' x 2" Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used none Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller Nike Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	2.0	4,5,4,3	0-0.1 Dark brown silt with cinders, glass, etc.	0
				0.1-2.0 Medium brown poorly graded sand with trace silt	
2	4	1.4	5,3,4,6	0-0.7 Medium brown poorly graded sand with trace silt	0
				0.7-1.4 Grayish brown poorly graded sand with trace silt, odor	
4	6	1.6	5,4,3,4	0-1.2 Grayish brown poorly graded sand with trace silt, odor	50
				1.2-1.3 Black silty fine sand, saturated with product	
				1.3-1.6 Grayish black poorly graded sand with trace silt, saturated with product	
6	8	1.4	3,2,3,5	0-1.4 Grayish black poorly graded sand with trace silt, saturated with product	100
8	10	1.5	6,5,7,7	0-1.1 Grayish black poorly graded sand with trace silt, saturated with product	350
				1.1-1.4 Black poorly graded sand with trace silt, saturated with product	
10	12	1.2	5,5,7,10	0-0.2 Black poorly graded sand with trace silt, saturated with product	3,500
				0.2-0.8 Grayish black poorly graded sand, saturated with product	

SAMPLE/CORE LOG

Boring/Well **GM-4**

Prepared By **Stephen J. Hjort**

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
				0.8-1.2 Grayish black well graded coarse sand with some small pebbles, saturated with product, WET	
12	14	1.6	4,4,4,3	0-0.3 Grayish black well graded coarse sand with some small pebbles, saturated with product, WET 0.3-1.5 Grayish black poorly graded sand, saturated with product, WET 1.5-1.6 Black silty fine sand, saturated with product, WET	
14	18			Blind drill End of Boring at 18'	

SAMPLE/CORE LOG

Boring/Well GM-5 Project/No. CI0299.002 Page 1 of 2

Site Location BNR/NAVISTAR Drilling Started 11/17/93 Drilling Complete 11/17/93

Total Depth Drilled 17 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2' x 2" Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used None Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller K. Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	1.0	9, 17/6"	0-0.4 Black silty sand	0
				0.4-1.0 Black silty sand with cinders and little gravel	
2	4	1.6	7,9,6,7	0-0.1 Black silty sand with cinders and little gravel	0
				0.1-0.4 Dark brown silty sand	
				0.4-0.7 Black silty sand	
				0.7-1.0 Dark brown silty sand	
				1.0-1.5 Black silty fine sand	
				1.5-1.6 Medium brown well graded very fine to	
				fine sand	
4	6	1.3	4,4,4,4	0-0.1 Medium brown well graded very fine to	70
				fine sand	
				0.1-1.1 Black silty sand, odor	
				1.1-1.3 Medium brown well graded fine sand	
6	8	1.5	6,3,3,3	0-0.3 Black silty sand, odor	40
				0.3-0.4 Light brown well graded fine sand	
				0.4-1.0 Tan well graded fine sand	
				1.0-1.5 Black poorly graded sand with little pebble	
				size gravel, odor	
8	10	1.4	3,4,8,8	0-0.8 Black poorly graded sand with 3 tan well	2,600
				graded fine sand seams at 0.5	
				0.8-1.4 Black silty sand and gravel, saturated with	
				product, moist to WET	

SAMPLE/CORE LOG

Boring/Well **GM-5**

Prepared By **Stephen J. Hjort**

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
10	12	1.5	4,6,7,8	0-0.3 Black silty sand and gravel, saturated with product, WET 0.3-1.1 Black poorly graded sand and gravel, saturated with product, WET 1.1-1.5 Grayish black poorly graded sand, saturated with product, WET	4,500
12	17			Blind drill End of Boring at 17'	

SAMPLE/CORE LOG

Boring/Well GM-6 Project/No. CI0299.002 Page 1 of 2

Site Location BNR/NAVISTAR Drilling Started 11/17/93 Drilling Complete 11/17/93

Total Depth Drilled 17 feet Hole Diameter 8.25 inches Coring Device Splitspoon

Length and Diameter of Coring Device 2' x 2" Sampling Interval Continuous feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used none Drilling Method _____

Drilling Contractor Rock & Soil Drilling Driller K. Swanson Helper Dustin Jackson

Prepared By Stephen J. Hjort Hammer Weight 140 Hammer Drop 27 inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
0	2	1.6	22,12,15,16	0-0.6 Black silty sand with cinders	600
				0.6-1.2 Dark brown silty sand and gravel, with cinders	
				1.2-1.6 Black silty sand with some gravel	
2	4	1.5	8,6,3,3	0-0.2 Black silty sand with some gravel	200
				0.2-1.5 Black silty sand, with tan well graded fine sand inclusions from 0.7-1.2, odor	
4	6	1.6	3,2,1,3	0-1.6 Black silty sand, odor	300
6	8	1.5	5,4,3,7	0-0.7 Black silty sand, odor	300
				0.7-1.5 Black poorly graded sand and gravel with trace silt, saturated with product	
8	10	1.3	7,4,2,2	0-0.8 Black poorly graded sand and gravel with trace silt, saturated with product	350
				0.8-0.9 Grayish green silty clay, saturated with product	
				0.9-1.3 Dark gray poorly graded sand, saturated with product	
10	12	1.3	2,2,2,2	0-0.1 Dark gray poorly graded sand, saturated with product	350
				0.1-1.1 Black poorly graded sand and gravel, saturated with product, WET	

SAMPLE/CORE LOG

Boring/Well **GM-6**

Prepared By **Stephen J. Hjort**

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	OVA
10	12	1.3	2,2,2,2	1.1-1.3 Black silt with trace clay, saturated with product, WET	
12	14	1.2	4,2,2,6	0-0.2 Alternating layers of black poorly graded sand and grayish black silty clay, saturated with product, WET 0.2-0.5 Black silty sand, saturated with product, WET 0.5-0.7 Black bituminous (coal) 0.7-1.2 Black poorly graded sand and gravel, saturated with product, WET	
14	17			Blind drill End of Boring at 17'	

Appendix B

Soil Analytical Results

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: _____
ATI Project Manager

Client:	GERAGHTY & MILLER CHICAGO, ILLINOIS
Project Name:	N/S
Project Number:	CI0299.002
Project Location:	BNR/NAVISTAR
Accession Number:	311572
Project Manager:	JIM AVER
Sampled By:	STEPHEN J. HJORT

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: Group of Single Metals

Accession:	311572
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	N/S
Project Location:	BNR/NAVISTAR
Department:	METALS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Multiple Sample Report Format"

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: Group of Single Metals
QcLevel: I

Lab Parameter: Id	Unit:	Result:	R.L	Q:
GM-1 2-4' 002 LEAD, TCLP (6010)	MG/L	ND	0.5	
GM-1 8-10' 004 LEAD, TCLP (6010)	MG/L	ND	0.5	
GM-2 10-12' 006 LEAD, TCLP (6010)	MG/L	ND	0.5	
GM-3 10-12' 008 LEAD, TCLP (6010)	MG/L	ND	0.5	
GM-4 10-12' 010 LEAD, TCLP (6010)	MG/L	ND	0.5	
GM-5 2-4' 012 LEAD, TCLP (6010)	MG/L	1.1	0.5	
GM-5 8-10' 014 LEAD, TCLP (6010)	MG/L	3.5	0.5	
GM-6 10-12' 016 LEAD, TCLP (6010)	MG/L	ND	0.5	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Multiple Sample Report Format"

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: Group of Single Metals

Client Id:	Lab Id:	Matrix:	Date/Time Sampled:	Date Received:
GM-1 2-4'	002	NON-AQUEOUS LEACHATE	16-NOV-93 1130	18-NOV-93
GM-1 8-10'	004	NON-AQUEOUS LEACHATE	16-NOV-93 1130	18-NOV-93
GM-2 10-12'	006	NON-AQUEOUS LEACHATE	16-NOV-93 1245	18-NOV-93
GM-3 10-12'	008	NON-AQUEOUS LEACHATE	16-NOV-93 1445	18-NOV-93
GM-4 10-12'	010	NON-AQUEOUS LEACHATE	16-NOV-93 1545	18-NOV-93
GM-5 2-4'	012	NON-AQUEOUS LEACHATE	17-NOV-93 0815	18-NOV-93
GM-5 8-10'	014	NON-AQUEOUS LEACHATE	17-NOV-93 0815	18-NOV-93
GM-6 10-12'	016	NON-AQUEOUS LEACHATE	17-NOV-93 0940	18-NOV-93

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: Group of Single Metals

Client Sample Id:	Parameter:	Unit:	Result:
GM-5 2-4'	LEAD, TCLP (6010)	MG/L	1.1
GM-5 8-10'	LEAD, TCLP (6010)	MG/L	3.5

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)

Accession:	311572
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	N/S
Project Location:	BNR/NAVISTAR
Department:	SEMI-VOLATILE FUELS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 001 Sample Date/Time: 16-NOV-93 1130
Client Sample Id: GM-1 2-4' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 92 Analysis Date: 27-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	77	11	
ACENAPHTHYLENE	UG/KG	ND	11	
ANTHRACENE	UG/KG	ND	11	
BENZO(a)ANTHRACENE	UG/KG	ND	2.8	
BENZO(a)PYRENE	UG/KG	ND	5	
BENZO(b)FLUORANTHENE	UG/KG	ND	3.9	
BENZO(g,h,i)PERYLENE	UG/KG	ND	11	
BENZO(k)FLUORANTHENE	UG/KG	ND	3.7	
CHRYSENE	UG/KG	ND	11	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	7	
FLUORANTHENE	UG/KG	15	11	
FLUORENE	UG/KG	16	11	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	9.3	
NAPHTHALENE	UG/KG	11	11	
PHENANTHRENE	UG/KG	11	11	
PYRENE	UG/KG	ND	11	
2-CHLOROANTHRACENE	%REC/SURR	73	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 003 Sample Date/Time: 16-NOV-93 1130
Client Sample Id: GM-1 8-10' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 85 Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1200	
ACENAPHTHYLENE	UG/KG	24000	1200	
ANTHRACENE	UG/KG	7100	1200	
BENZO(a)ANTHRACENE	UG/KG	8500	310	
BENZO(a)PYRENE	UG/KG	4100	540	
BENZO(b)FLUORANTHENE	UG/KG	2900	420	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1200	
BENZO(k)FLUORANTHENE	UG/KG	6500	400	
CHRYSENE	UG/KG	3900	1200	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	710	
FLUORANTHENE	UG/KG	52000	1200	
FLUORENE	UG/KG	31000	1200	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	1000	
NAPHTHALENE	UG/KG	1600	1200	
PHENANTHRENE	UG/KG	10000	1200	
PYRENE	UG/KG	59000	1200	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 005 Sample Date/Time: 16-NOV-93 1245
Client Sample Id: GM-2 10-12' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 79 Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1300	
ACENAPHTHYLENE	UG/KG	ND	1300	
ANTHRACENE	UG/KG	16000	1300	
BENZO(a)ANTHRACENE	UG/KG	18000	330	
BENZO(a)PYRENE	UG/KG	8500	580	
BENZO(b)FLUORANTHENE	UG/KG	8000	460	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1300	
BENZO(k)FLUORANTHENE	UG/KG	15000	430	
CHRYSENE	UG/KG	13000	1300	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	760	
FLUORANTHENE	UG/KG	ND	1300	
FLUORENE	UG/KG	77000	1300	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	1100	
NAPHTHALENE	UG/KG	12000	1300	
PHENANTHRENE	UG/KG	86000	1300	
PYRENE	UG/KG	150000	1300	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 007
Client Sample Id: GM-3 10-12'
Sample Date/Time: 16-NOV-93 1445
Received Date: 18-NOV-93

Batch: PAS306
Blank: A
Dry Weight %: 88
Extraction Date: 22-NOV-93
Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1100	
ACENAPHTHYLENE	UG/KG	21000	1100	
ANTHRACENE	UG/KG	10000	1100	
BENZO(a)ANTHRACENE	UG/KG	8100	300	
BENZO(a)PYRENE	UG/KG	3000	520	
BENZO(b)FLUORANTHENE	UG/KG	7200	410	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1100	
BENZO(k)FLUORANTHENE	UG/KG	ND	390	
CHRYSENE	UG/KG	6300	1100	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	680	
FLUORANTHENE	UG/KG	120000	1100	
FLUORENE	UG/KG	28000	1100	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	980	
NAPHTHALENE	UG/KG	ND	1100	
PHENANTHRENE	UG/KG	8300	1100	
PYRENE	UG/KG	64000	1100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 009 Sample Date/Time: 16-NOV-93 1545
Client Sample Id: GM-4 10-12' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 88 Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1100	
ACENAPHTHYLENE	UG/KG	17000	1100	
ANTHRACENE	UG/KG	5000	1100	
BENZO(a)ANTHRACENE	UG/KG	7800	300	
BENZO(a)PYRENE	UG/KG	3700	520	
BENZO(b)FLUORANTHENE	UG/KG	5200	410	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1100	
BENZO(k)FLUORANTHENE	UG/KG	2800	390	
CHRYSENE	UG/KG	3900	1100	
DIBENZO(a,h)ANTHRACENE	UG/KG	5200	680	
FLUORANTHENE	UG/KG	98000	1100	
FLUORENE	UG/KG	19000	1100	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	980	
NAPHTHALENE	UG/KG	ND	1100	
PHENANTHRENE	UG/KG	24000	1100	
PYRENE	UG/KG	58000	1100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 011 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 2-4' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 93 Analysis Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	3000	11	
ACENAPHTHYLENE	UG/KG	950	11	
ANTHRACENE	UG/KG	170	11	
BENZO(a)ANTHRACENE	UG/KG	490	2.8	
BENZO(a)PYRENE	UG/KG	ND	4.9	
BENZO(b)FLUORANTHENE	UG/KG	670	3.9	
BENZO(g,h,i)PERYLENE	UG/KG	600	11	
BENZO(k)FLUORANTHENE	UG/KG	260	3.7	
CHRYSENE	UG/KG	170	11	
DIBENZO(a,h)ANTHRACENE	UG/KG	1800	6	
FLUORANTHENE	UG/KG	1900	11	
FLUORENE	UG/KG	460	11	
INDENO(1,2,3-cd)PYRENE	UG/KG	410	9.2	
NAPHTHALENE	UG/KG	51	11	
PHENANTHRENE	UG/KG	390	11	
PYRENE	UG/KG	1700	11	
2-CHLOROANTHRACENE	%REC/SURR	365*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE FAILURE DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 013 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 8-10' Received Date: 18-NOV-93

Batch: PAS306 Extraction Date: 22-NOV-93
Blank: A Dry Weight %: 85 Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1200	
ACENAPHTHYLENE	UG/KG	63000	1200	
ANTHRACENE	UG/KG	11000	1200	
BENZO(a)ANTHRACENE	UG/KG	13000	310	
BENZO(a)PYRENE	UG/KG	3300	540	
BENZO(b)FLUORANTHENE	UG/KG	5700	420	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1200	
BENZO(k)FLUORANTHENE	UG/KG	2000	400	
CHRYSENE	UG/KG	9100	1200	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	710	
FLUORANTHENE	UG/KG	200000	1200	
FLUORENE	UG/KG	48000	1200	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	1000	
NAPHTHALENE	UG/KG	ND	1200	
PHENANTHRENE	UG/KG	59000	1200	
PYRENE	UG/KG	110000	1200	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3550/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: SOIL
QC Level: I

Lab Id: 015
Client Sample Id: GM-6 10-12'
Sample Date/Time: 17-NOV-93 0940
Received Date: 18-NOV-93

Batch: PAS306
Blank: A
Dry Weight %: 83
Extraction Date: 22-NOV-93
Analysis Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/KG	ND	1200	
ACENAPHTHYLENE	UG/KG	48000	1200	
ANTHRACENE	UG/KG	18000	1200	
BENZO(a)ANTHRACENE	UG/KG	15000	310	
BENZO(a)PYRENE	UG/KG	8200	550	
BENZO(b)FLUORANTHENE	UG/KG	14000	430	
BENZO(g,h,i)PERYLENE	UG/KG	ND	1200	
BENZO(k)FLUORANTHENE	UG/KG	5000	410	
CHRYSENE	UG/KG	9600	1200	
DIBENZO(a,h)ANTHRACENE	UG/KG	ND	720	
FLUORANTHENE	UG/KG	110000	1200	
FLUORENE	UG/KG	54000	1200	
INDENO(1,2,3-cd)PYRENE	UG/KG	ND	1000	
NAPHTHALENE	UG/KG	ND	1200	
PHENANTHRENE	UG/KG	16000	1200	
PYRENE	UG/KG	120000	1200	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)

Client Sample Id:	Parameter:	Unit:	Result:
GM-1 2-4'	ACENAPHTHENE	UG/KG	77
	FLUORANTHENE	UG/KG	15
	FLUORENE	UG/KG	16
	NAPHTHALENE	UG/KG	11
	PHENANTHRENE	UG/KG	11
GM-1 8-10'	ACENAPHTHYLENE	UG/KG	24000
	ANTHRACENE	UG/KG	7100
	BENZO(a)ANTHRACENE	UG/KG	8500
	BENZO(a)PYRENE	UG/KG	4100
	BENZO(b)FLUORANTHENE	UG/KG	2900
	BENZO(k)FLUORANTHENE	UG/KG	6500
	CHRYSENE	UG/KG	3900
	FLUORANTHENE	UG/KG	52000
	FLUORENE	UG/KG	31000
	NAPHTHALENE	UG/KG	1600
	PHENANTHRENE	UG/KG	10000
	PYRENE	UG/KG	59000
GM-2 10-12'	ANTHRACENE	UG/KG	16000
	BENZO(a)ANTHRACENE	UG/KG	18000
	BENZO(a)PYRENE	UG/KG	8500
	BENZO(b)FLUORANTHENE	UG/KG	8000
	BENZO(k)FLUORANTHENE	UG/KG	15000
	CHRYSENE	UG/KG	13000
	FLUORENE	UG/KG	77000
	NAPHTHALENE	UG/KG	12000
	PHENANTHRENE	UG/KG	86000
	PYRENE	UG/KG	150000
GM-3 10-12'	ACENAPHTHYLENE	UG/KG	21000
	ANTHRACENE	UG/KG	10000
	BENZO(a)ANTHRACENE	UG/KG	8100
	BENZO(a)PYRENE	UG/KG	3000
	BENZO(b)FLUORANTHENE	UG/KG	7200
	CHRYSENE	UG/KG	6300
	FLUORANTHENE	UG/KG	120000
	FLUORENE	UG/KG	28000
	PHENANTHRENE	UG/KG	8300
	PYRENE	UG/KG	64000
GM-4 10-12'	ACENAPHTHYLENE	UG/KG	17000
	ANTHRACENE	UG/KG	5000
	BENZO(a)ANTHRACENE	UG/KG	7800
	BENZO(a)PYRENE	UG/KG	3700
	BENZO(b)FLUORANTHENE	UG/KG	5200
	BENZO(k)FLUORANTHENE	UG/KG	2800
	CHRYSENE	UG/KG	3900

"Method Report Summary"

Accession Number: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: POLYNUCLEAR AROMATICS BY 8310 (ILLINOIS TYPE A)

Client Sample Id:	Parameter:	Unit:	Result:
	DIBENZO(a,h)ANTHRACENE	UG/KG	5200
	FLUORANTHENE	UG/KG	98000
	FLUORENE	UG/KG	19000
	PHENANTHRENE	UG/KG	24000
	PYRENE	UG/KG	58000
GM-5 2-4'	ACENAPHTHENE	UG/KG	3000
	ACENAPHTHYLENE	UG/KG	950
	ANTHRACENE	UG/KG	170
	BENZO(a)ANTHRACENE	UG/KG	490
	BENZO(b)FLUORANTHENE	UG/KG	670
	BENZO(g,h,i)PERYLENE	UG/KG	600
	BENZO(k)FLUORANTHENE	UG/KG	260
	CHRYSENE	UG/KG	170
	DIBENZO(a,h)ANTHRACENE	UG/KG	1800
	FLUORANTHENE	UG/KG	1900
	FLUORENE	UG/KG	460
	INDENO(1,2,3-cd)PYRENE	UG/KG	410
	NAPHTHALENE	UG/KG	51
	PHENANTHRENE	UG/KG	390
	PYRENE	UG/KG	1700
GM-5 8-10'	ACENAPHTHYLENE	UG/KG	63000
	ANTHRACENE	UG/KG	11000
	BENZO(a)ANTHRACENE	UG/KG	13000
	BENZO(a)PYRENE	UG/KG	3300
	BENZO(b)FLUORANTHENE	UG/KG	5700
	BENZO(k)FLUORANTHENE	UG/KG	2000
	CHRYSENE	UG/KG	9100
	FLUORANTHENE	UG/KG	200000
	FLUORENE	UG/KG	48000
	PHENANTHRENE	UG/KG	59000
	PYRENE	UG/KG	110000
GM-6 10-12'	ACENAPHTHYLENE	UG/KG	48000
	ANTHRACENE	UG/KG	18000
	BENZO(a)ANTHRACENE	UG/KG	15000
	BENZO(a)PYRENE	UG/KG	8200
	BENZO(b)FLUORANTHENE	UG/KG	14000
	BENZO(k)FLUORANTHENE	UG/KG	5000
	CHRYSENE	UG/KG	9600
	FLUORANTHENE	UG/KG	110000
	FLUORENE	UG/KG	54000
	PHENANTHRENE	UG/KG	16000
	PYRENE	UG/KG	120000

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: PCB

Accession:	311572
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	N/S
Project Location:	BNR/NAVISTAR
Department:	PESTICIDES

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Date 02-Dec-93

Accession:	311572
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	N/S
Project Location:	BNR/NAVISTAR
Test:	PCB
Analysis Method:	8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method:	3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix:	SOIL
QC Level:	I

Lab Id:	001	Sample Date/Time:	16-NOV-93 1130
Client Sample Id:	GM-1 2-4'	Received Date:	18-NOV-93
Batch: PCS295		Extraction Date:	23-NOV-93
Blank: B	Dry Weight %: 92	Analysis Date:	30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	36	
AROCLOR-1221	UG/KG	ND	36	
AROCLOR-1232	UG/KG	ND	36	
AROCLOR-1242	UG/KG	ND	36	
AROCLOR-1248	UG/KG	ND	36	
AROCLOR-1254	UG/KG	ND	36	
AROCLOR-1260	UG/KG	ND	36	
DCB	%REC/SURR	102	22-147	
TCMX	%REC/SURR	65	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 003
Client Sample Id: GM-1 8-10'
Sample Date/Time: 16-NOV-93 1130
Received Date: 18-NOV-93

Batch: PCS295
Blank: B
Dry Weight %: 85
Extraction Date: 23-NOV-93
Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	39	
AROCLOR-1221	UG/KG	ND	39	
AROCLOR-1232	UG/KG	ND	39	
AROCLOR-1242	UG/KG	ND	39	
AROCLOR-1248	UG/KG	ND	39	
AROCLOR-1254	UG/KG	ND	39	
AROCLOR-1260	UG/KG	ND	39	
DCB	%REC/SURR	143	22-147	
TCMX	%REC/SURR	68	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 005 Sample Date/Time: 16-NOV-93 1245
Client Sample Id: GM-2 10-12' Received Date: 18-NOV-93

Batch: PCS295 Extraction Date: 23-NOV-93
Blank: B Dry Weight %: 79 Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	42	
AROCLOR-1221	UG/KG	ND	42	
AROCLOR-1232	UG/KG	ND	42	
AROCLOR-1242	UG/KG	ND	42	
AROCLOR-1248	UG/KG	ND	42	
AROCLOR-1254	UG/KG	ND	42	
AROCLOR-1260	UG/KG	ND	42	
DCB	%REC/SURR	143	22-147	
TCMX	%REC/SURR	80	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 007
Client Sample Id: GM-3 10-12'
Sample Date/Time: 16-NOV-93 1445
Received Date: 18-NOV-93

Batch: PCS295
Blank: B
Dry Weight %: 88
Extraction Date: 23-NOV-93
Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	38	
AROCLOR-1221	UG/KG	ND	38	
AROCLOR-1232	UG/KG	ND	38	
AROCLOR-1242	UG/KG	ND	38	
AROCLOR-1248	UG/KG	ND	38	
AROCLOR-1254	UG/KG	ND	38	
AROCLOR-1260	UG/KG	ND	38	
DCB	%REC/SURR	137	22-147	
TCMX	%REC/SURR	77	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 009
Client Sample Id: GM-4 10-12'
Sample Date/Time: 16-NOV-93 1545
Received Date: 18-NOV-93

Batch: PCS295
Blank: B
Dry Weight %: 88
Extraction Date: 23-NOV-93
Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	38	
AROCLOR-1221	UG/KG	ND	38	
AROCLOR-1232	UG/KG	ND	38	
AROCLOR-1242	UG/KG	ND	38	
AROCLOR-1248	UG/KG	ND	38	
AROCLOR-1254	UG/KG	ND	38	
AROCLOR-1260	UG/KG	ND	38	
DCB	%REC/SURR	147	22-147	
TCMX	%REC/SURR	58	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 011
Client Sample Id: GM-5 2-4'
Sample Date/Time: 17-NOV-93 0815
Received Date: 18-NOV-93

Batch: PCS295
Blank: B
Dry Weight %: 93
Extraction Date: 23-NOV-93
Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	35	
AROCLOR-1221	UG/KG	ND	35	
AROCLOR-1232	UG/KG	ND	35	
AROCLOR-1242	UG/KG	ND	35	
AROCLOR-1248	UG/KG	450	35	
AROCLOR-1254	UG/KG	ND	35	
AROCLOR-1260	UG/KG	ND	35	
DCB	%REC/SURR	58	22-147	
TCMX	%REC/SURR	23	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 013 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 8-10' Received Date: 18-NOV-93

Batch: PCS295 Extraction Date: 23-NOV-93
Blank: B Dry Weight %: 85 Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	39	
AROCLOR-1221	UG/KG	ND	39	
AROCLOR-1232	UG/KG	ND	39	
AROCLOR-1242	UG/KG	ND	39	
AROCLOR-1248	UG/KG	ND	39	
AROCLOR-1254	UG/KG	ND	39	
AROCLOR-1260	UG/KG	ND	39	
DCB	%REC/SURR	86	22-147	
TCMX	%REC/SURR	55	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: SOIL
QC Level: I

Lab Id: 015
Client Sample Id: GM-6 10-12'
Sample Date/Time: 17-NOV-93 0940
Received Date: 18-NOV-93

Batch: PCS295
Blank: B
Dry Weight %: 83
Extraction Date: 23-NOV-93
Analysis Date: 30-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/KG	ND	40	
AROCLOR-1221	UG/KG	ND	40	
AROCLOR-1232	UG/KG	ND	40	
AROCLOR-1242	UG/KG	ND	40	
AROCLOR-1248	UG/KG	ND	40	
AROCLOR-1254	UG/KG	ND	40	
AROCLOR-1260	UG/KG	ND	40	
DCB	%REC/SURR	95	22-147	
TCMX	%REC/SURR	60	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: PCB

Client Sample Id:	Parameter:	Unit:	Result:
GM-5 2-4'	AROCLOR-1248	UG/KG	450

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: VOLATILES (8240)

Accession:	311572
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	N/S
Project Location:	BNR/NAVISTAR
Department:	ORGANIC/MS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 001
Client Sample Id: GM-1 2-4'
Sample Date/Time: 16-NOV-93 1130
Received Date: 18-NOV-93

Batch: NAS108
Blank: B
Dry Weight %: 93
Extraction Date: N/A
Analysis Date: 23-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	39	11	
ACROLEIN	UG/KG	ND	110	
ACRYLONITRILE	UG/KG	ND	110	
BENZENE	UG/KG	ND	1	
BROMODICHLOROMETHANE	UG/KG	ND	1	
BROMOFORM	UG/KG	ND	2	
BROMOMETHANE	UG/KG	ND	1	
2-BUTANONE (MEK)	UG/KG	ND	3	
CARBON DISULFIDE	UG/KG	ND	1	
CARBON TETRACHLORIDE	UG/KG	ND	2	
CHLOROBENZENE	UG/KG	ND	1	
CHLOROETHANE	UG/KG	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	5	
CHLOROFORM	UG/KG	ND	2	
CHLOROMETHANE	UG/KG	ND	2	
CHLORODIBROMOMETHANE	UG/KG	ND	5	
DIBROMOMETHANE	UG/KG	ND	5	
DICHLORODIFLUOROMETHANE	UG/KG	ND	5	
1,1-DICHLOROETHANE	UG/KG	ND	1	
1,2-DICHLOROETHANE	UG/KG	ND	2	
1,1-DICHLOROETHENE	UG/KG	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	5	
1,2-DICHLOROPROPANE	UG/KG	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	1	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	5	
ETHYL BENZENE	UG/KG	ND	1	
ETHYL METHACRYLATE	UG/KG	ND	5	
2-HEXANONE	UG/KG	ND	3	
IODOMETHANE	UG/KG	ND	5	
METHYLENE CHLORIDE	UG/KG	7	3	
4-METHYL-2-PENTANONE	UG/KG	ND	3	
STYRENE	UG/KG	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	2	
TETRACHLOROETHENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
1,1,1-TRICHLOROETHANE	UG/KG	ND	5	
1,1,2-TRICHLOROETHANE	UG/KG	ND	2	
TRICHLOROETHENE	UG/KG	ND	1	
TRICHLOROFLUOROMETHANE	UG/KG	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 001 Sample Date/Time: 16-NOV-93 1130
Client Sample Id: GM-1 2-4' Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	5	
VINYL ACETATE	UG/KG	ND	2	
VINYL CHLORIDE	UG/KG	ND	1	
TOTAL XYLENES	UG/KG	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	100	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	101	70-121	
TOLUENE-D8	%REC/SURR	104	81-117	
ANALYST	INITIALS	DWB		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 003 Sample Date/Time: 16-NOV-93 1130
Client Sample Id: GM-1 8-10' Received Date: 18-NOV-93

Batch: NAS108 Extraction Date: N/A
Blank: C Dry Weight %: 86 Analysis Date: 24-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	84	58	
ACROLEIN	UG/KG	ND	580	
ACRYLONITRILE	UG/KG	ND	580	
BENZENE	UG/KG	ND	6	
BROMODICHLOROMETHANE	UG/KG	ND	6	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	6	
2-BUTANONE (MEK)	UG/KG	ND	20	
CARBON DISULFIDE	UG/KG	ND	6	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	6	
CHLOROETHANE	UG/KG	ND	6	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	6	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	6	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	13	6	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	28	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	6	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	6	
TRICHLOROFLUOROMETHANE	UG/KG	ND	6	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 003
Client Sample Id: GM-1 8-10'
Sample Date/Time: 16-NOV-93 1130
Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	6	
TOTAL XYLENES	UG/KG	88	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	89	70-121	
TOLUENE-D8	%REC/SURR	92	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 005 Sample Date/Time: 16-NOV-93 1245
Client Sample Id: GM-2 10-12' Received Date: 18-NOV-93

Batch: NAS108 Extraction Date: N/A
Blank: B Dry Weight %: 79 Analysis Date: 23-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	260	63	
ACROLEIN	UG/KG	ND	630	
ACRYLONITRILE	UG/KG	ND	630	
BENZENE	UG/KG	ND	6	
BROMODICHLOROMETHANE	UG/KG	ND	6	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	6	
2-BUTANONE (MEK)	UG/KG	40	20	
CARBON DISULFIDE	UG/KG	ND	6	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	6	
CHLOROETHANE	UG/KG	ND	6	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	6	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	6	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	11	6	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	ND	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	6	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	6	
TRICHLOROFLUOROMETHANE	UG/KG	9	6	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 005
Client Sample Id: GM-2 10-12'
Sample Date/Time: 16-NOV-93 1245
Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	6	
TOTAL XYLENES	UG/KG	56	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	95	70-121	
TOLUENE-D8	%REC/SURR	96	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 007
Client Sample Id: GM-3 10-12'
Sample Date/Time: 16-NOV-93 1445
Received Date: 18-NOV-93

Batch: NAS108
Blank: C
Dry Weight %: 89
Extraction Date: N/A
Analysis Date: 24-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	77	56	
ACROLEIN	UG/KG	ND	560	
ACRYLONITRILE	UG/KG	ND	560	
BENZENE	UG/KG	ND	6	
BROMODICHLOROMETHANE	UG/KG	ND	6	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	6	
2-BUTANONE (MEK)	UG/KG	ND	20	
CARBON DISULFIDE	UG/KG	ND	6	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	6	
CHLOROETHANE	UG/KG	ND	6	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	6	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	6	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	13	6	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	27	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	6	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	6	
TRICHLOROFLUOROMETHANE	UG/KG	ND	6	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 007 Sample Date/Time: 16-NOV-93 1445
Client Sample Id: GM-3 10-12' Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	6	
TOTAL XYLENES	UG/KG	ND	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	81	70-121	
TOLUENE-D8	%REC/SURR	91	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 009
Client Sample Id: GM-4 10-12'
Sample Date/Time: 16-NOV-93 1545
Received Date: 18-NOV-93

Batch: NAS108
Blank: B
Dry Weight %: 94
Extraction Date: N/A
Analysis Date: 23-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	ND	53	
ACROLEIN	UG/KG	ND	530	
ACRYLONITRILE	UG/KG	ND	530	
BENZENE	UG/KG	ND	5	
BROMODICHLOROMETHANE	UG/KG	ND	5	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	5	
2-BUTANONE (MEK)	UG/KG	ND	20	
CARBON DISULFIDE	UG/KG	ND	5	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	5	
CHLOROETHANE	UG/KG	ND	5	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	5	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	5	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	5	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	5	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	16	5	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	ND	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	5	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	5	
TRICHLOROFLUOROMETHANE	UG/KG	ND	5	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 009
Client Sample Id: GM-4 10-12'
Sample Date/Time: 16-NOV-93 1545
Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	5	
TOTAL XYLENES	UG/KG	ND	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	107	70-121	
TOLUENE-D8	%REC/SURR	96	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 011 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 2-4' Received Date: 18-NOV-93

Batch: NAS108 Extraction Date: N/A
Blank: B Dry Weight %: 94 Analysis Date: 23-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	120	11	
ACROLEIN	UG/KG	ND	110	
ACRYLONITRILE	UG/KG	ND	110	
BENZENE	UG/KG	2	1	
BROMODICHLOROMETHANE	UG/KG	ND	1	
BROMOFORM	UG/KG	ND	2	
BROMOMETHANE	UG/KG	ND	1	
2-BUTANONE (MEK)	UG/KG	22	3	
CARBON DISULFIDE	UG/KG	ND	1	
CARBON TETRACHLORIDE	UG/KG	ND	2	
CHLOROBENZENE	UG/KG	ND	1	
CHLOROETHANE	UG/KG	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	5	
CHLOROFORM	UG/KG	ND	2	
CHLOROMETHANE	UG/KG	ND	2	
CHLORODIBROMOMETHANE	UG/KG	ND	5	
DIBROMOMETHANE	UG/KG	ND	5	
DICHLORODIFLUOROMETHANE	UG/KG	ND	5	
1,1-DICHLOROETHANE	UG/KG	ND	1	
1,2-DICHLOROETHANE	UG/KG	ND	2	
1,1-DICHLOROETHENE	UG/KG	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	5	
1,2-DICHLOROPROPANE	UG/KG	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	1	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	5	
ETHYL BENZENE	UG/KG	ND	1	
ETHYL METHACRYLATE	UG/KG	ND	5	
2-HEXANONE	UG/KG	ND	3	
IODOMETHANE	UG/KG	ND	5	
METHYLENE CHLORIDE	UG/KG	ND	3	
4-METHYL-2-PENTANONE	UG/KG	ND	3	
STYRENE	UG/KG	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	2	
TETRACHLOROETHENE	UG/KG	ND	1	
TOLUENE	UG/KG	ND	5	
1,1,1-TRICHLOROETHANE	UG/KG	ND	5	
1,1,2-TRICHLOROETHANE	UG/KG	ND	2	
TRICHLOROETHENE	UG/KG	ND	1	
TRICHLOROFLUOROMETHANE	UG/KG	3	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 011
Client Sample Id: GM-5 2-4'
Sample Date/Time: 17-NOV-93 0815
Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	5	
VINYL ACETATE	UG/KG	ND	2	
VINYL CHLORIDE	UG/KG	ND	1	
TOTAL XYLENES	UG/KG	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	85	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	102	70-121	
TOLUENE-D8	%REC/SURR	M*	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 013 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 8-10' Received Date: 18-NOV-93

Batch: NAS108 Extraction Date: N/A
Blank: C Dry Weight %: 89 Analysis Date: 23-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	230	56	
ACROLEIN	UG/KG	ND	560	
ACRYLONITRILE	UG/KG	ND	560	
BENZENE	UG/KG	ND	6	
BROMODICHLOROMETHANE	UG/KG	ND	6	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	6	
2-BUTANONE (MEK)	UG/KG	ND	20	
CARBON DISULFIDE	UG/KG	ND	6	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	6	
CHLOROETHANE	UG/KG	ND	6	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	6	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	6	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	10	6	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	33	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	6	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	6	
TRICHLOROFLUOROMETHANE	UG/KG	ND	6	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 013 Sample Date/Time: 17-NOV-93 0815
Client Sample Id: GM-5 8-10' Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	6	
TOTAL XYLENES	UG/KG	ND	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	104	70-121	
TOLUENE-D8	%REC/SURR	93	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 015
Client Sample Id: GM-6 10-12'
Sample Date/Time: 17-NOV-93 0940
Received Date: 18-NOV-93

Batch: NAS108
Blank: C
Dry Weight %: 85
Extraction Date: N/A
Analysis Date: 24-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/KG	200	59	
ACROLEIN	UG/KG	ND	590	
ACRYLONITRILE	UG/KG	ND	590	
BENZENE	UG/KG	ND	6	
BROMODICHLOROMETHANE	UG/KG	ND	6	
BROMOFORM	UG/KG	ND	10	
BROMOMETHANE	UG/KG	ND	6	
2-BUTANONE (MEK)	UG/KG	37	20	
CARBON DISULFIDE	UG/KG	ND	6	
CARBON TETRACHLORIDE	UG/KG	ND	10	
CHLOROBENZENE	UG/KG	ND	6	
CHLOROETHANE	UG/KG	ND	6	
2-CHLOROETHYLVINYL ETHER	UG/KG	ND	30	
CHLOROFORM	UG/KG	ND	10	
CHLOROMETHANE	UG/KG	ND	10	
CHLORODIBROMOMETHANE	UG/KG	ND	30	
DIBROMOMETHANE	UG/KG	ND	30	
DICHLORODIFLUOROMETHANE	UG/KG	ND	30	
1,1-DICHLOROETHANE	UG/KG	ND	6	
1,2-DICHLOROETHANE	UG/KG	ND	10	
1,1-DICHLOROETHENE	UG/KG	ND	6	
TOTAL 1,2-DICHLOROETHYLENE	UG/KG	ND	30	
1,2-DICHLOROPROPANE	UG/KG	ND	10	
CIS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
TRANS-1,3-DICHLOROPROPENE	UG/KG	ND	6	
1,4-DICHLORO-2-BUTENE	UG/KG	ND	30	
ETHYL BENZENE	UG/KG	8	6	
ETHYL METHACRYLATE	UG/KG	ND	30	
2-HEXANONE	UG/KG	ND	20	
IODOMETHANE	UG/KG	ND	30	
METHYLENE CHLORIDE	UG/KG	31	20	
4-METHYL-2-PENTANONE	UG/KG	ND	20	
STYRENE	UG/KG	ND	10	
1,1,2,2-TETRACHLOROETHANE	UG/KG	ND	10	
TETRACHLOROETHENE	UG/KG	ND	6	
TOLUENE	UG/KG	ND	30	
1,1,1-TRICHLOROETHANE	UG/KG	ND	30	
1,1,2-TRICHLOROETHANE	UG/KG	ND	10	
TRICHLOROETHENE	UG/KG	ND	6	
TRICHLOROFLUOROMETHANE	UG/KG	7	6	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: SOIL
QC Level: I

Lab Id: 015
Client Sample Id: GM-6 10-12'
Sample Date/Time: 17-NOV-93 0940
Received Date: 18-NOV-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/KG	ND	30	
VINYL ACETATE	UG/KG	ND	10	
VINYL CHLORIDE	UG/KG	ND	6	
TOTAL XYLENES	UG/KG	ND	10	
BROMOFLUOROBENZENE	%REC/SURR	M*	74-121	
1,2-DICHLOROETHANE-D4	%REC/SURR	95	70-121	
TOLUENE-D8	%REC/SURR	91	81-117	
ANALYST	INITIALS	DWB		

Comments:
* MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 311572
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: N/S
Project Location: BNR/NAVISTAR
Test: VOLATILES (8240)

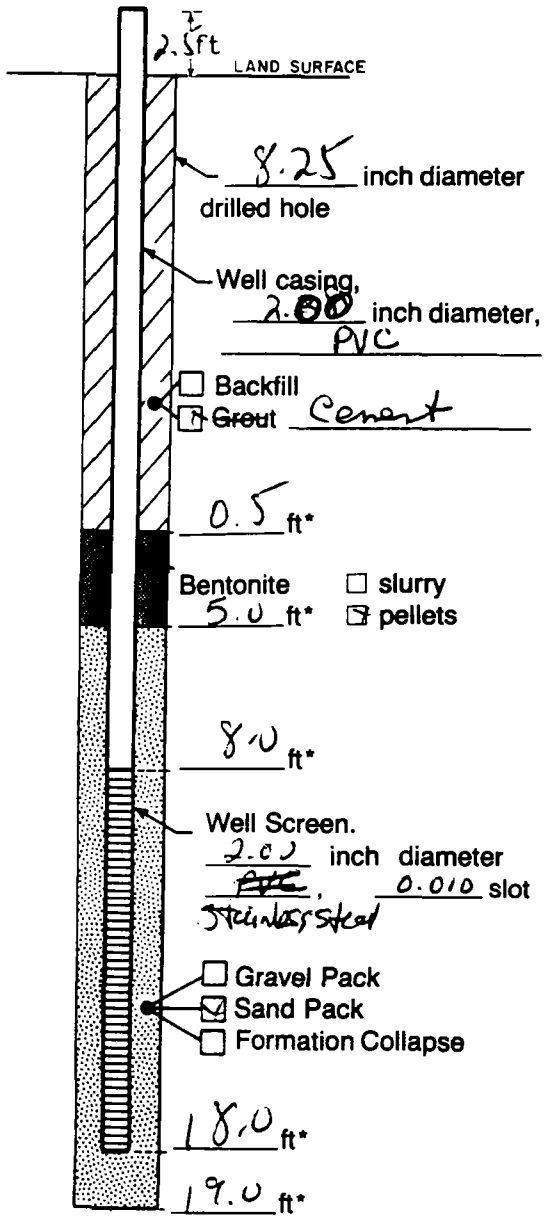
Client Sample Id:	Parameter:	Unit:	Result:
GM-1 2-4'	ACETONE	UG/KG	39
	METHYLENE CHLORIDE	UG/KG	7
GM-1 8-10'	ACETONE	UG/KG	84
	ETHYL BENZENE	UG/KG	13
	METHYLENE CHLORIDE	UG/KG	28
	TOTAL XYLENES	UG/KG	88
GM-2 10-12'	ACETONE	UG/KG	260
	2-BUTANONE (MEK)	UG/KG	40
	ETHYL BENZENE	UG/KG	11
	TRICHLOROFLUOROMETHANE	UG/KG	9
	TOTAL XYLENES	UG/KG	56
GM-3 10-12'	ACETONE	UG/KG	77
	ETHYL BENZENE	UG/KG	13
	METHYLENE CHLORIDE	UG/KG	27
GM-4 10-12'	ETHYL BENZENE	UG/KG	16
GM-5 2-4'	ACETONE	UG/KG	120
	BENZENE	UG/KG	2
	2-BUTANONE (MEK)	UG/KG	22
	TRICHLOROFLUOROMETHANE	UG/KG	3
GM-5 8-10'	ACETONE	UG/KG	230
	ETHYL BENZENE	UG/KG	10
	METHYLENE CHLORIDE	UG/KG	33
GM-6 10-12'	ACETONE	UG/KG	200
	2-BUTANONE (MEK)	UG/KG	37
	ETHYL BENZENE	UG/KG	8
	METHYLENE CHLORIDE	UG/KG	31
	TRICHLOROFLUOROMETHANE	UG/KG	7

Appendix C

Well Construction Logs

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG
(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CI0299.002 Well GM-1

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/16/93

Drilling Method HSA

Drilling Contractor Rock & Soil Drilling

Drilling Fluid n/a

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

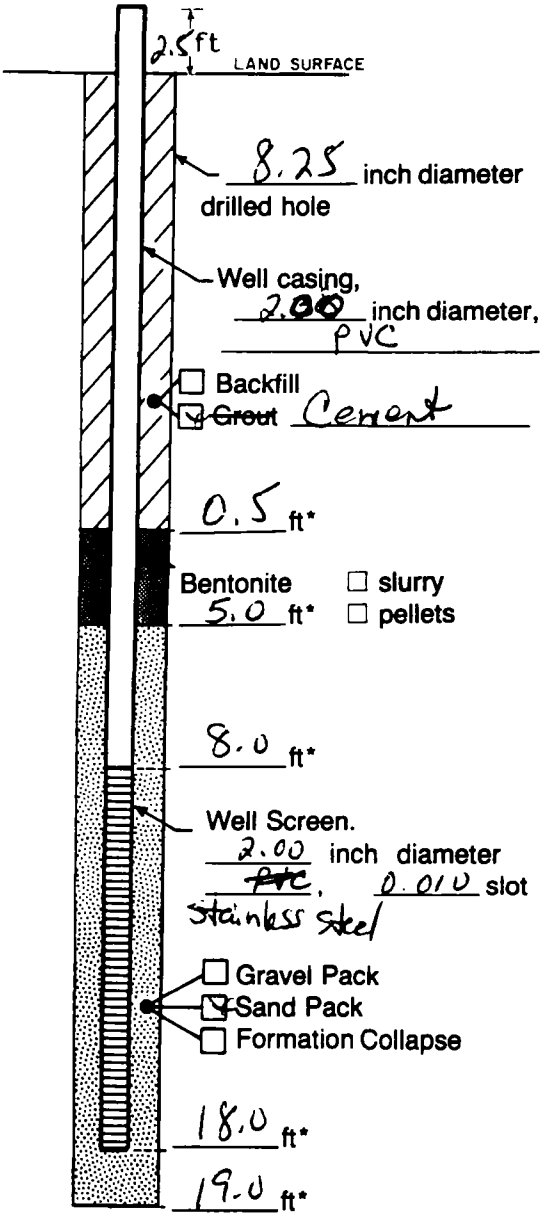
Remarks _____

Prepared by Stephen J. Hyde

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG

(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CI0299.002 Well GM-2

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/16/92

Drilling Method HSA

Drilling Contractor Rock & Soil Drilling

Drilling Fluid n/a

_____

Development Technique(s) and Date(s)

_____

_____

_____

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

_____

_____

Remarks _____

_____

_____

_____

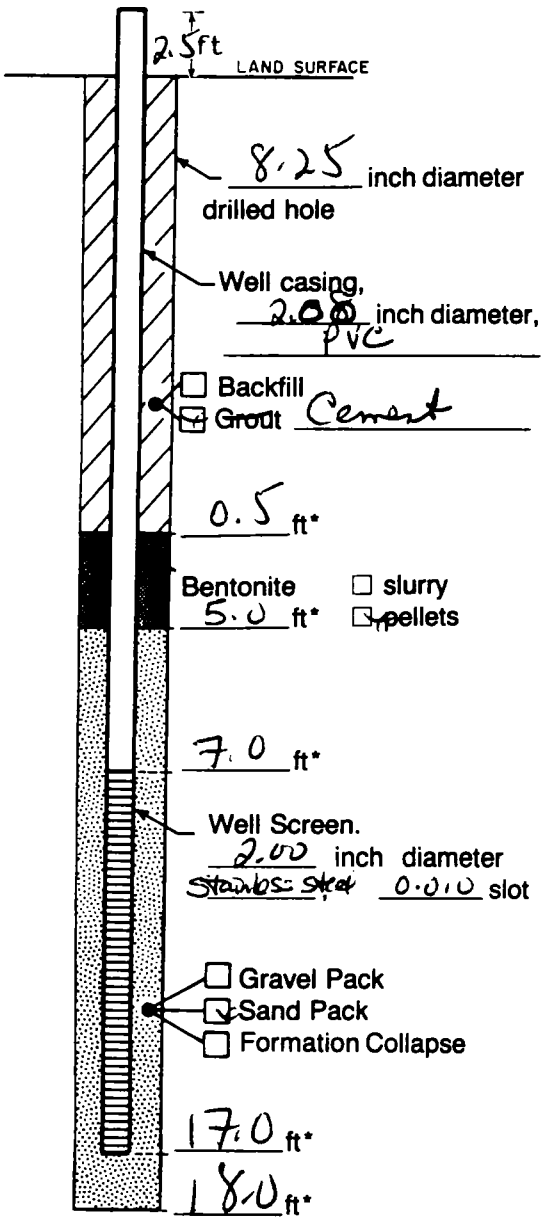
_____

_____

Prepared by Stephen J. Hyde

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG
(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CI0299.002 Well GM-3

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/16/93

Drilling Method HSA

Drilling Contractor Pork Sort Drilling

Drilling Fluid N/A

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

Remarks _____

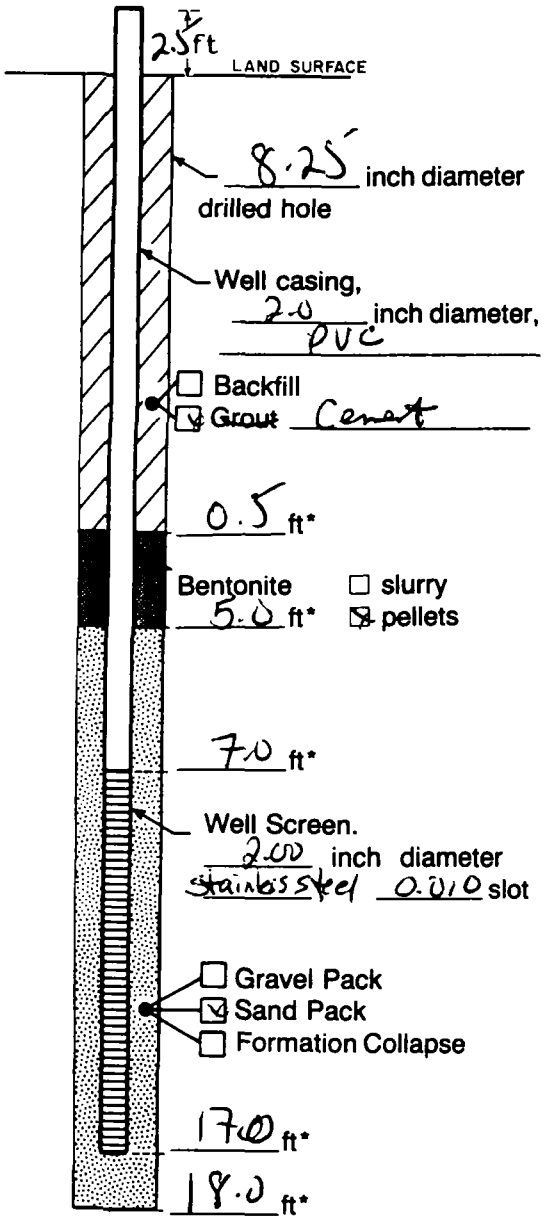
Prepared by Steph J Hyst

G&M Form 05 12-88

Southprint 89-0978

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG
(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CI0299.002 Well GM-4

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/16/93

Drilling Method HSA

Drilling Contractor Rock & Soil Drilling

Drilling Fluid n/a

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

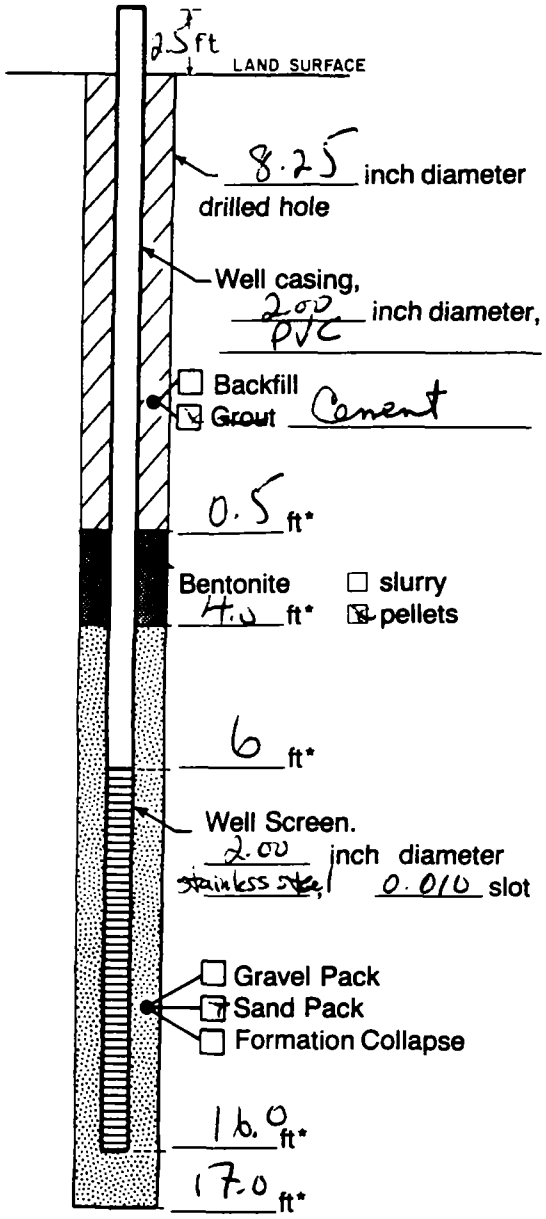
Remarks _____

Prepared by Stephen J Hyde

Southprint 89-0978

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG
(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CT0299.002 Well GM-5

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/17/93

Drilling Method HSA

Drilling Contractor Rock & Soil Drilling

Drilling Fluid n/a

Development Technique(s) and Date(s)

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

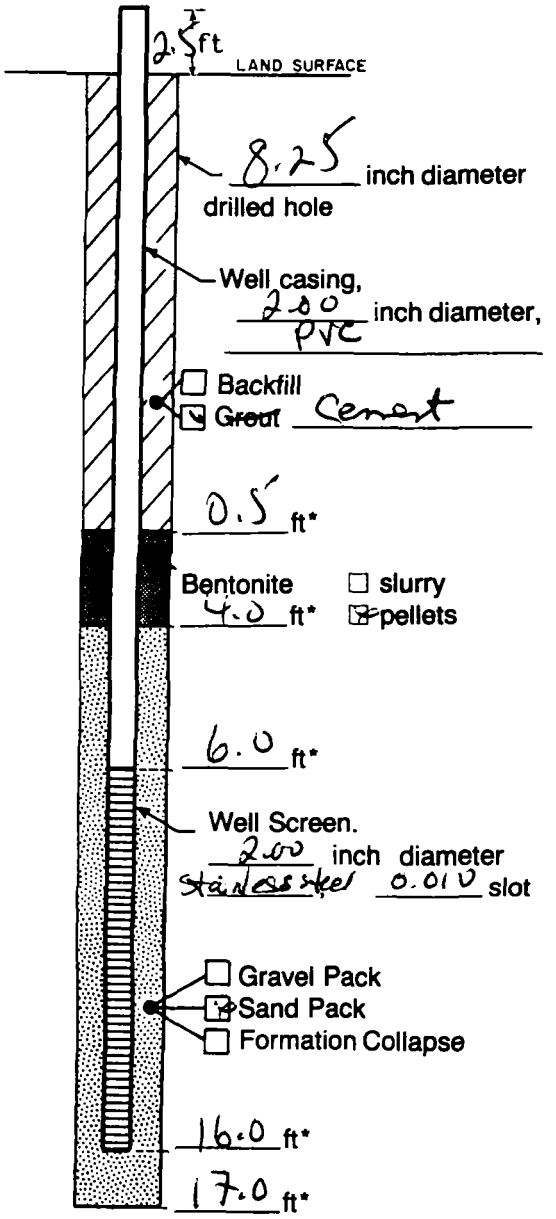
Remarks _____

Prepared by Stephen J. Hyde

Southprint 89-0978

GERAGHTY & MILLER, INC.
Environmental Services

WELL CONSTRUCTION LOG
(UNCONSOLIDATED)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

*Depth Below Land Surface

Project CTO 299.002 Well GM-6

Town/City _____

County _____ State _____

Permit No. _____

Land-Surface Elevation

and Datum _____ feet ☐ Surveyed

_____ ☐ Estimated

Installation Date(s) 11/17/93

Drilling Method HSA

Drilling Contractor Rock & Soil Drilling

Drilling Fluid n/a

_____

Development Technique(s) and Date(s)

_____

_____

_____

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose _____

_____

_____

Remarks _____

_____

_____

_____

_____

_____

Prepared by Steph J Hyatt

Appendix D

Well Development Logs

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ——

Facility/Project Name	County Name	Well Name GM-1
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number ——— DNR Well Number ———

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☑	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	——

3. Time spent developing well 80 min

4. Depth of well (from top of well casing) 191 (190.0) ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 4.8 gal.

7. Volume of water removed from well 25.0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	11.26 ft.	11.34 ft.
Date	11/17/93 (m m / d d / y y)	11/17/93 (m m / d d / y y)
Time	12:30 ☐ a.m. ☒ p.m.	1:50 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	——.— inches	——.— inches
13. Water clarity	Clear ☐ 04 Turbid ☑ 04 (Describe) Black, gasoline diesel fuel	Clear ☐ 04 Turbid ☒ 04 (Describe) Black, cloudy, odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	———.— mg/l	———.— mg/l
15. COD	———.— mg/l	———.— mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Signature: _____

Firm: _____

I hearby certify that the above information is true and correct to the best of my knowledge

Signature: Stephen J Hyde

Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ____

Facility/Project Name	County Name	Well Name GM-2
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number _____ / DNR Well Number ___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	___

3. Time spent developing well 80 min

4. Depth of well (from top of well casing) 19.86 / 19.8 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 4.9 gal.

7. Volume of water removed from well 25.0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	12.00 ft.	12.24 ft.
Date	11 / 17 / 93 (m m / d d / y y)	11 / 17 / 93 (m m / d d / y y)
Time	2:00 ☐ a.m. ☒ p.m.	3:30 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	0.1 inches	.0 inches
13. Water clarity	Clear ☐ 04 Turbid ☒ 04 (Describe) Black, product sheen	Clear ☒ 04 Turbid ☐ 04 (Describe) Black, slightly cloudy, odor
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm	I hearby certify that the above information is true and correct to the best of my knowledge
Signature: _____	Signature: Stephen J Hoff
Firm: _____	Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ____

Facility/Project Name	County Name	Well Name GM-3
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number _____ / DNR Well Number ___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	___

3. Time spent developing well 90 min

4. Depth of well (from top of well casing) ~~19.57~~ 19.9 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 3.8 gal.

7. Volume of water removed from well ~~200~~ 60 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	13.41 ft.	13.52 ft.
Date	11/17/93 (m m / d d / y y)	11/18/93 (m m / d d / y y)
Time	3:45 ☐ a.m. ☒ p.m.	10:45 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	3.8 inches	0 inches
13. Water clarity	Clear ☐ 04 Turbid ☒ 04 (Describe) Black, product sheen	Clear ☐ 04 Turbid ☒ 04 (Describe) Black, turbid, odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Additional comments on development: Well was surged for 10 minutes at purged of 2 gal of water then dried out. After recovery an 2 gal was removed until it dried out again. On 11/18/93 an additional 2 gal removed & the water clear but.

Well developed by: Person's Name and Firm

Signature: _____

Firm: _____

I hearby certify that the above information is true and correct to the best of my knowledge

Signature: Stephen J. Hyst

Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ____

Facility/Project Name	County Name	Well Name GM-4
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number _____ DNR Well Number ___

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well 40 min

4. Depth of well (from top of well casing) 19.80 19.60 19.6 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 4.4 gal.

7. Volume of water removed from well 200 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	12.77 ft.	12.81 ft.
Date	11 / 18 / 93 (m m / d d / y y)	11 / 18 / 93 (m m / d d / y y)
Time	7 : 40 ☒ a.m. ☐ p.m.	9 : 00 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 04 Turbid ☒ 04 (Describe) Black, product sheen	Clear ☐ 04 Turbid ☐ 04 (Describe) Black, cloudy, odor

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Signature: _____

Firm: _____

I hearby certify that the above information is true and correct to the best of my knowledge

Signature: Stephen J. Hyatt

Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ____

Facility/Project Name	County Name	Well Name GM-5
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number _____ / DNR Well Number ___

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	___

3. Time spent developing well 70 min (17.6)

4. Depth of well (from top of well casing) ~~18.70~~ ~~18.7~~ ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 3.3 gal.

7. Volume of water removed from well 14.0 gal.

8. Volume of water added (if any) ~~0~~ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	13.40 ft.	~~13.68~~ 13.63 ft.
Date	11 / 18 / 93 (m m / d d / y y)	11 / 18 / 93 (m m / d d / y y)
Time	10:00 ☒ a.m. ☐ p.m.	11:20 ☒ a.m. ☐ p.m.
12. Sediment in well bottom	1.0 inches	.0 inches
13. Water clarity	Clear ☐ 04 Turbid ☒ 04 (Describe) ~~Black product sheen~~	Clear ☐ 04 Turbid ☒ 04 (Describe) ~~Black product sheen~~
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

Additional comments on development: Well bailed dry after 5 gal. - Bailed total 3 gal cycles completed for a total of 14 gal removed

Well developed by: Person's Name and Firm	I hearby certify that the above information is true and correct to the best of my knowledge
Signature: _____	Signature: Stephen J Hyatt
Firm: _____	Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B 4/90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ——

Facility/Project Name	County Name	Well Name GM-6
License, Permit or Monitoring Number	County Code	Wis. Unique Well Number _____ DNR Well Number ___

1. Can this well be purged dry? ☑ Yes ☐ No

2. Well development method

surged with bailer and bailed	☑	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	___

3. Time spent developing well 70 min
17.20 17.70 177
4. Depth of well (from top of well casing) 17.7 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 2.3 gal.

7. Volume of water removed from well 4.0 gal.

8. Volume of water added (if any) ____.__ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	13.63 ft.	13.68 ft.
Date	11 / 18 / 93 (m m / d d / y y)	11 / 18 / 93 (m m / d d / y y)
Time	9:25 ☑ a.m. ☐ p.m.	11:10 ☑ a.m. ☐ p.m.
12. Sediment in well bottom	50 inches	0 inches
13. Water clarity	Clear ☐ 04 Turbid ☑ 04 (Describe) Black, product sheen	Clear ☐ 04 Turbid ☐ 04 (Describe) Black, cloudy, odor
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

Additional comments on development: Well bailed dry after about 1 gal. 4-1 gal cycles performed.

Well developed by: Person's Name and Firm

Signature: _____

Firm: _____

I hearby certify that the above information is true and correct to the best of my knowledge

Signature: Stephen J Hyatt

Firm: _____

NOTE: Shaded areas are for DNR use only. See instructions for more information

0317.02

Appendix E

Water Sampling Logs

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-1 Coded/ Replicate No. NA Date 11-30-93

Weather _____ Time Sampling Began 1640 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.06 MP Elevation 564.86

Total Sounded Depth of Well Below MP 19.19 Water-Level Elevation 553.20

Held _____ Depth to Water Below MP 11.66 Diameter of Casing 2-inch

Wet _____ Water Column in Well 7.53 Gallons Pumped/Bailed Prior to Sampling 3.75

Gallons per Foot 0.16

Gallons in Well 1.20 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 14.6 °F (°C)

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 580 pH 6.26

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750 mL, plastic	4°C

Remarks _____

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-2 Coded/ Replicate No. NA Date 11-30-93

Weather _____ Time Sampling Began 1600 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 1.8 MP Elevation 564.60

Total Sounded Depth of Well Below MP 19.97 Water-Level Elevation 552.28

Held _____ Depth to Water Below MP 12.32 Diameter of Casing 2-inch

Wet _____ Water Column in Well 7.65 Gallons Pumped/Bailed Prior to Sampling 3.75

Gallons per Foot 0.16

Gallons in Well 1.22 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 15.2 °F/°C

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 690 pH 6.29

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750 mL, plastic	4°C

Remarks _____

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.				
1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-3 Coded/ Replicate No. NA Date 11-30-93

Weather _____ Time Sampling Began 1500 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.77 MP Elevation 565.67

Total Sounded Depth of Well Below MP 20.05 Water-Level Elevation 552.02

Held _____ Depth to Water Below MP 13.65 Diameter of Casing 2-inch

Wet _____ Water Column in Well 6.40 Gallons Pumped/Bailed Prior to Sampling 3.75

Gallons per Foot 0.16

Gallons in Well 1.02 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 16.0 °F (°C)

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 490 pH 6.26

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750 mL, plastic	4°C

Remarks _____

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-4 Coded/ Replicate No. NA Date 11-30-93

Weather Cloudy 30s Time Sampling Began 1420 Time Sampling Completed

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.3 MP Elevation 565.60

Total Sounded Depth of Well Below MP 19.75 Water-Level Elevation 552.69

Held ____ Depth to Water Below MP 12.91 Diameter of Casing 2-inch

Wet ____ Water Column in Well 6.84 Gallons Pumped/Bailed Prior to Sampling 3.75

Gallons per Foot 0.16

Gallons in Well 1.09 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color ____ Odor ____ Appearance ____ Temperature 15.2 °F (°C)

Other (specific ion; OVA; HNU; etc.) ____

Specific Conductance, umhos/cm 900 pH 6.16

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750 mL, plastic	4°C

Remarks Product 12.88

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-5 Coded/ Replicate No. GM-0 Date 12-1-94

Weather _____ Time Sampling Began 1000/0910 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 1.81 MP Elevation 566.81

Total Sounded Depth of Well Below MP 17.78 Water-Level Elevation 553.17

Held _____ Depth to Water Below MP 13.64 Diameter of Casing 2-inch

Wet _____ Water Column in Well 4.14 Gallons Pumped/Bailed Prior to Sampling 3.00

Gallons per Foot 0.16

Gallons in Well 0.66 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 15.8 °F (°C)

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 520 pH 6.62

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750 mL, plastic	4°C

Remarks 13.61 Product

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.							
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. GM-6 Coded/ Replicate No. _____ Date 12-1-94

Weather _____ Time Sampling Began 0850 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.28 MP Elevation 565.78

Total Sounded Depth of Well Below MP 17.86 Water-Level Elevation 551.97

Held _____ Depth to Water Below MP 13.81 Diameter of Casing 2-inch

Wet _____ Water Column in Well 4.05 Gallons Pumped/Bailed Prior to Sampling 2.50

Gallons per Foot 0.16

Gallons in Well 0.65 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 15.0 °F/°C

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 380 pH 6.11

Sampling Method and Material PVC bailer; nylon rope

Constituents Sampled	Container Description From Lab x or G&M ____	Preservative
VOCs	2x40mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750mL, plastic	4°C

Remarks _____

Sampling Personnel James Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. MW-5 Coded/ Replicate No. NA Date 12-1-94

Weather _____ Time Sampling Began 1230 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 1.67 MP Elevation 570.67

Total Sounded Depth of Well Below MP 30.33 Water-Level Elevation 552.24

Held _____ Depth to Water Below MP 18.43 Diameter of Casing 2-inch

Wet _____ Water Column in Well 11.90 Gallons Pumped/Bailed Prior to Sampling _____

Gallons per Foot 0.16

Gallons in Well 1.90 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 15.4 °F/°C

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 970 pH 6.51

Sampling Method and Material PVC bailer; nylon rope.

Constituents Sampled	Container Description From Lab X or G&M ____	Preservative
VOCs	2 x 40 mL	HCL, 4°C
PNAs	1-Liter	4°C
PCBs	1-Liter	4°C
Lead	750 mL, plastic	4°C

Remarks _____

Sampling Personnel James P. Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. MW-6 Coded/ Replicate No. _____ Date 12-1-94

Weather _____ Time Sampling Began 1130 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.13 MP Elevation 570.13

Total Sounded Depth of Well Below MP 25.35 Water-Level Elevation 553.17

Held _____ Depth to Water Below MP 16.96 Diameter of Casing 2-inch

Wet _____ Water Column in Well 8.39 Gallons Pumped/Bailed Prior to Sampling 1.50

Gallons per Foot 0.16

Gallons in Well 1.34 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated Bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature NA °F/°C

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm NA pH NA

Sampling Method and Material PVC bailer; nylon rope

Constituents Sampled	Container Description From Lab x or G&M ____	Preservative
VOCs	2x40mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750mL, plastic	4°C

Remarks 16.93 Product; Well Bailed dry after evacuating first well volume; Sampled after well recovery.

Sampling Personnel James Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. MW-8 Coded/ Replicate No. _____ Date 12-1-94

Weather _____ Time Sampling Began 1040 Time Sampling Completed _____

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 0.48 MP Elevation 566.28

Total Sounded Depth of Well Below MP 25.32 Water-Level Elevation 552.40

Held _____ Depth to Water Below MP 13.88 Diameter of Casing 2-inch

Wet _____ Water Column in Well 11.44 Gallons Pumped/Bailed Prior to Sampling 6.00

Gallons per Foot 0.16

Gallons in Well 1.83 Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature 16.0 °F (°C)

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm 720 pH 6.78

Sampling Method and Material PVC bailer; nylon rope

Constituents Sampled	Container Description From Lab x or G&M ____	Preservative
VOCs	2x40mL	HCl, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750mL, plastic	4°C

Remarks _____

Sampling Personnel James Auer

WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

GERAGHTY & MILLER, INC.
Environmental Services

WATER SAMPLING LOG

Project/No. Navistar/BNR/CI0299.001 Page 1 of 1

Site Location Rock Island, Illinois

Site/Well No. MW-9 Coded/ Replicate No. NA Date 12-1-94

Weather _____ Time Sampling Began NA Time Sampling Completed NA

EVACUATION DATA

Description of Measuring Point (MP) Top of inner casing

Height of MP Above/Below Land Surface 2.12 MP Elevation 570.12

Total Sounded Depth of Well Below MP 28.35 Water-Level Elevation 550.15

Held _____ Depth to Water Below MP 22.65 Diameter of Casing 2-inch

Wet _____ Water Column in Well _____ Gallons Pumped/Bailed Prior to Sampling _____

Gallons per Foot _____

Gallons in Well _____ Sampling Pump Intake Setting (feet below land surface) NA

Evacuation Method Dedicated bailer

SAMPLING DATA/FIELD PARAMETERS

Color _____ Odor _____ Appearance _____ Temperature _____ °F/°C

Other (specific ion; OVA; HNU; etc.) _____

Specific Conductance, umhos/cm _____ pH _____

Sampling Method and Material PVC bailer; nylon rope

Constituents Sampled	Container Description From Lab x or G&M	Preservative
VOCs	2x40mL	HCL, 4°C
PNAs	1-Liter, amber	4°C
PCBs	1-Liter, amber	4°C
Lead	750mL, plastic	4°C

Remarks 19.55 Product; No Sampling due to 3.10 Ft. of Product

Sampling Personnel James Auer

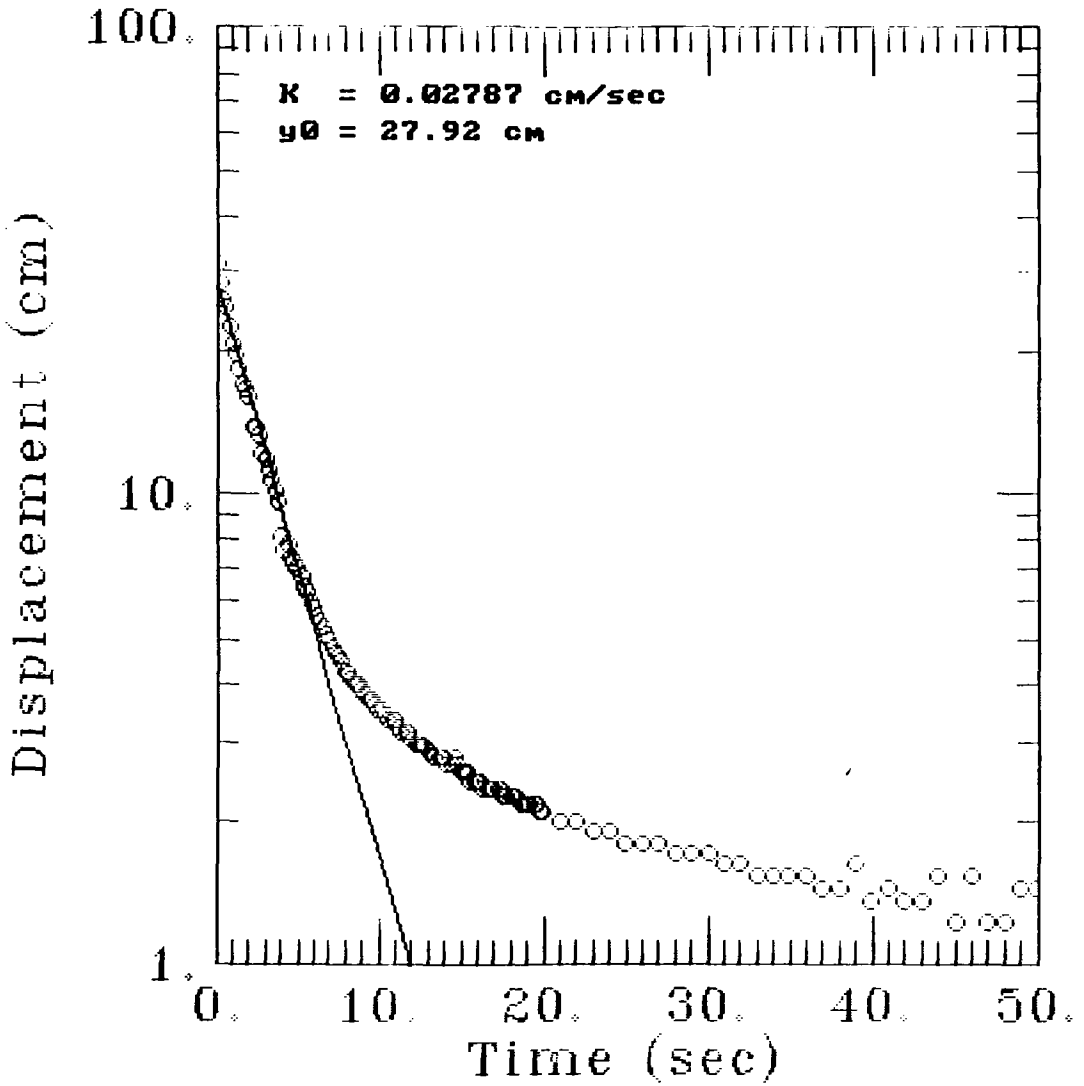
WELL CASING VOLUMES

GAL./FT.				
	1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

Appendix F

Slug Test Data

GM-1 Rising Head Test

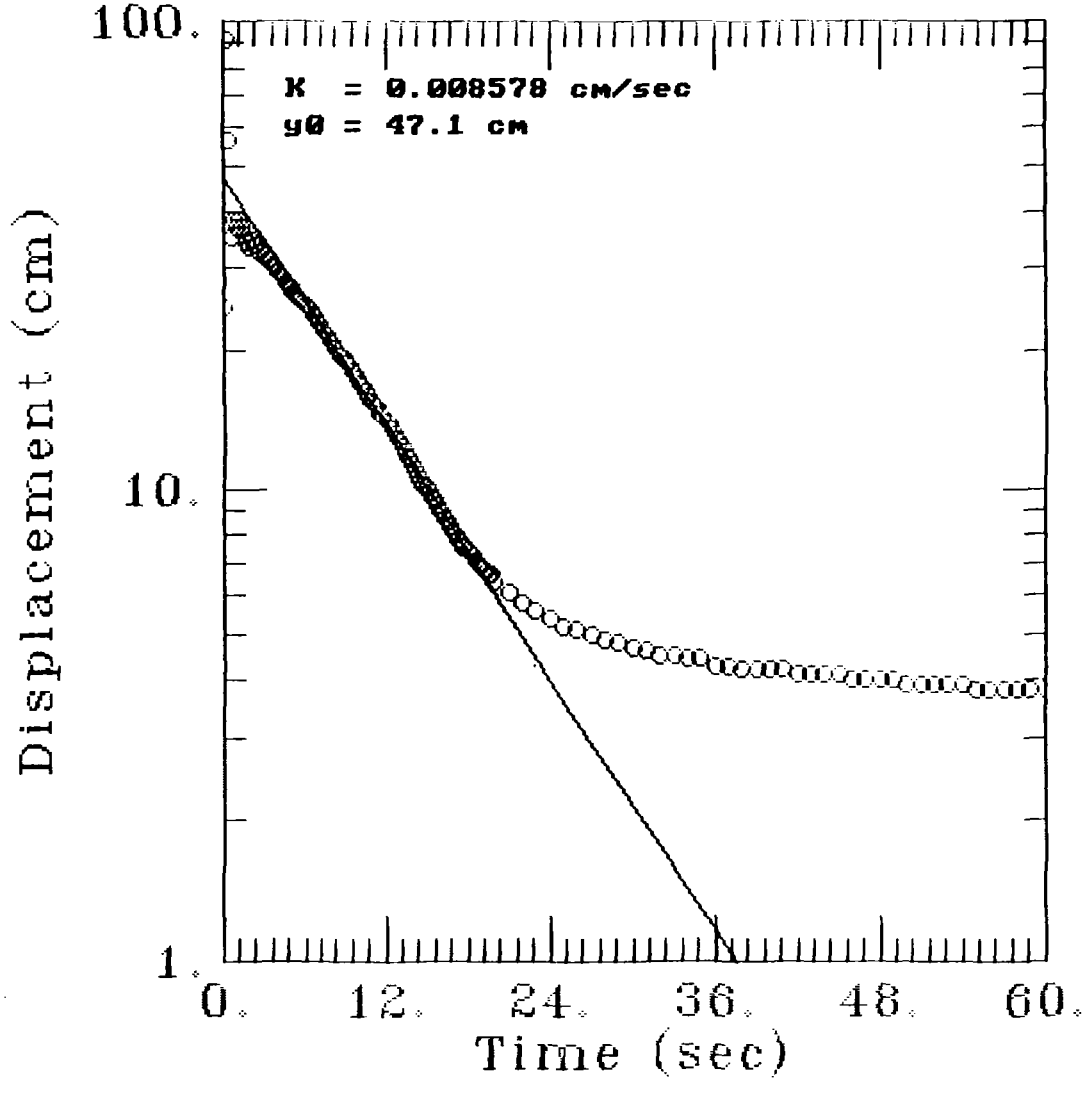


AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

GM-5 Rising Head Test

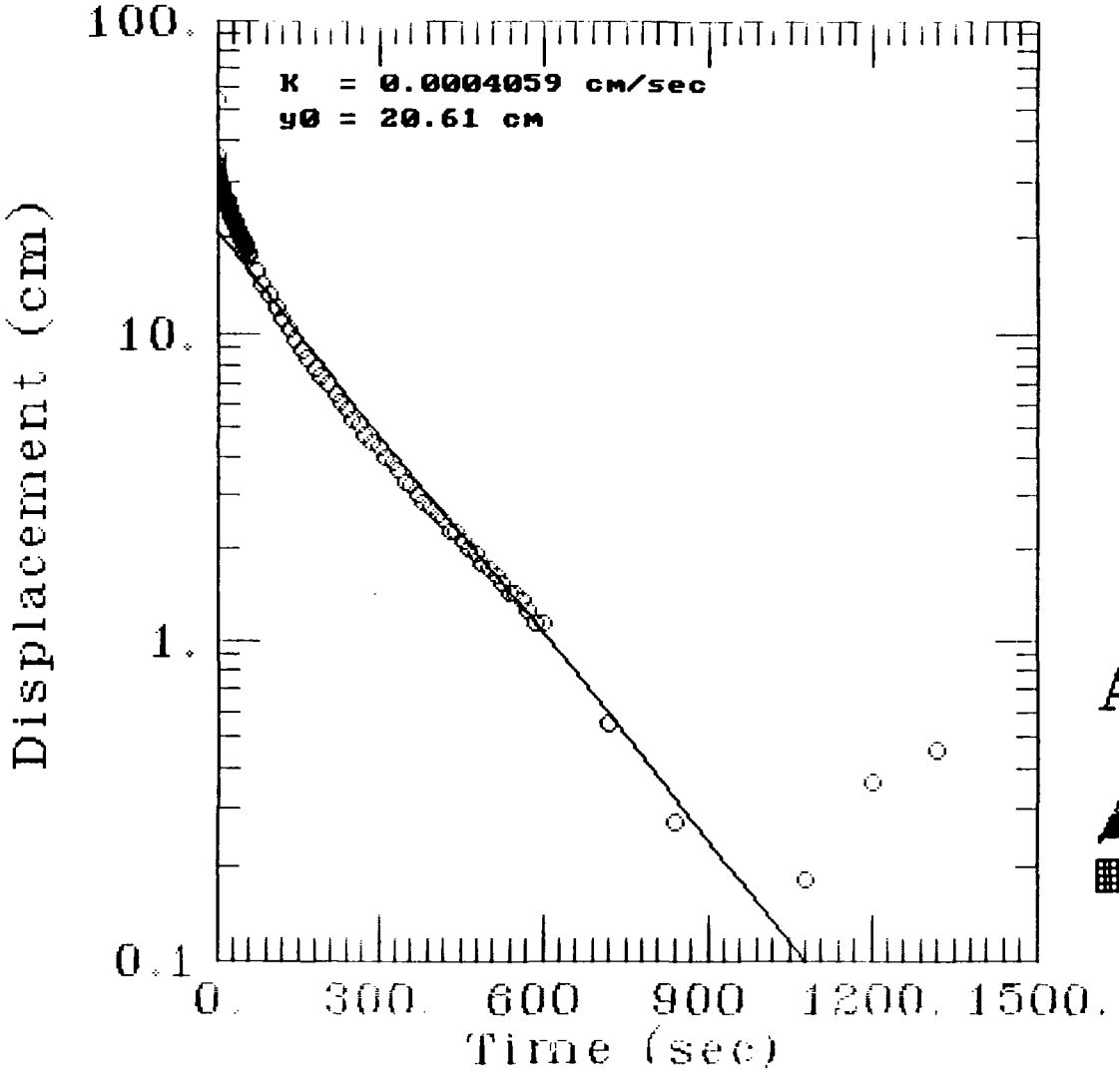


AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

GM-6 Rising Head Test



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
12/22 13:20

Unit# 00462 Test 0

Setups:	INPUT 1
Type	Level (F)
Mode	Surface
I.D.	GM-1
Reference	0.000
Linearity	-0.010
Scale factor	9.990
Offset	0.010
Delay mSEC	50.000

Step 1 12/21 14:39:20

Elapsed Time (minutes)	Displacement (feet)
0	1.024
0.0033	0.933
0.0066	0.854
0.01	0.816
0.0133	0.737
0.0166	0.681
0.02	0.646
0.0233	0.599
0.0266	0.551
0.03	0.542
0.0333	0.52
0.0366	0.447
0.04	0.447
0.0433	0.432
0.0466	0.397
0.05	0.387
0.0533	0.368
0.0566	0.35
0.06	0.331
0.0633	0.315
0.0666	0.268
0.07	0.252
0.0733	0.258
0.0766	0.242
0.08	0.236
0.0833	0.23
0.0866	0.22
0.09	0.211
0.0933	0.204
0.0966	0.195
0.1	0.189
0.1033	0.182
0.1066	0.179
0.11	0.173
0.1133	0.167
0.1166	0.163
0.12	0.157
0.1233	0.154
0.1266	0.151
0.13	0.148
0.1333	0.141
0.1366	0.138
0.14	0.135
0.1433	0.132
0.1466	0.132
0.15	0.129
0.1533	0.126
0.1566	0.122
0.16	0.122
0.1633	0.119
0.1666	0.116
0.17	0.116
0.1733	0.113
0.1766	0.11
0.18	0.11
0.1833	0.11
0.1866	0.107
0.19	0.104
0.1933	0.104
0.1966	0.104
0.2	0.1
0.2033	0.097
0.2066	0.097
0.21	0.097
0.2133	0.097
0.2166	0.094
0.22	0.094
0.2233	0.091
0.2266	0.091
0.23	0.091
0.2333	0.091
0.2366	0.088
0.24	0.088
0.2433	0.091
0.2466	0.088
0.25	0.085
0.2533	0.085
0.2566	0.085
0.26	0.081
0.2633	0.081
0.2666	0.081
0.27	0.081
0.2733	0.078
0.2766	0.078
0.28	0.078
0.2833	0.078
0.2866	0.078
0.29	0.078
0.2933	0.075
0.2966	0.075
0.3	0.075
0.3033	0.075
0.3066	0.075
0.31	0.072
0.3133	0.072
0.3166	0.072
0.32	0.072
0.3233	0.072
0.3266	0.072
0.33	0.069
0.3333	0.069
0.35	0.066
0.3666	0.066
0.3833	0.063
0.4	0.063
0.4166	0.059
0.4333	0.059
0.45	0.059
0.4666	0.056
0.4833	0.056
0.5	0.056
0.5166	0.053
0.5333	0.053
0.55	0.05
0.5666	0.05
0.5833	0.05
0.6	0.05
0.6166	0.047
0.6333	0.047

Unit# 00462 Test 0 (continued)
Step 1 12/21 14:39:20

Elapsed Time (minutes)	Displacement (feet)
0.65	0.053
0.6666	0.044
0.6833	0.047
0.7	0.044
0.7166	0.044
0.7333	0.05
0.75	0.04
0.7666	0.05
0.7833	0.04
0.8	0.04
0.8166	0.047
0.8333	0.047
0.85	0.04
0.8666	0.044
0.8833	0.037

SE1000C
12/22 13:45

Unit# 00462 Test 4

Setups:	INPUT 1
Type	Level (F)
Mode	Surface
I.D.	GM-6
Reference	0.000
Linearity	-0.010
Scale factor	9.990
Offset	0.010
Delay mSEC	50.000

Step 0 12/21 16:44:28

Elapsed Time (minutes)	Displacement (feet)
0	2.633
0.0033	0.135
0.0066	1.801
0.01	1.179
0.0133	1.11
0.0166	1.075
0.02	1.103
0.0233	1.094
0.0266	1.075
0.03	1.066
0.0333	1.062
0.0366	1.066
0.04	1.059
0.0433	1.056
0.0466	1.044
0.05	1.047
0.0533	1.04
0.0566	1.04
0.06	1.031
0.0633	1.025
0.0666	1.018
0.07	1.015
0.0733	1.012
0.0766	1.009

Elapsed Time (minutes)	Displacement (feet)	Elapsed Time (minutes)	Displacement (feet)
0.08	1.006	0.23	0.892
0.0833	1.006	0.2333	0.892
0.0866	0.999	0.2366	0.889
0.09	0.996	0.24	0.889
0.0933	0.996	0.2433	0.886
0.0966	0.99	0.2466	0.883
0.1	0.987	0.25	0.883
0.1033	0.987	0.2533	0.879
0.1066	0.984	0.2566	0.876
0.11	0.98	0.26	0.876
0.1133	0.977	0.2633	0.873
0.1166	0.974	0.2666	0.873
0.12	0.971	0.27	0.87
0.1233	0.971	0.2733	0.87
0.1266	0.965	0.2766	0.867
0.13	0.965	0.28	0.864
0.1333	0.962	0.2833	0.864
0.1366	0.958	0.2866	0.861
0.14	0.955	0.29	0.861
0.1433	0.952	0.2933	0.857
0.15	0.949	0.3	0.854
0.1533	0.946	0.3033	0.851
0.1566	0.943	0.3066	0.851
0.16	0.943	0.31	0.848
0.1633	0.939	0.3133	0.848
0.1666	0.936	0.3166	0.845
0.17	0.933	0.32	0.842
0.1733	0.93	0.3233	0.838
0.1766	0.93	0.3266	0.838
0.18	0.927	0.33	0.838
0.1833	0.924	0.3333	0.835
0.1866	0.924	0.35	0.826
0.19	0.92	0.3666	0.82
0.1933	0.917	0.3833	0.807
0.1966	0.914	0.4	0.801
0.2	0.914	0.4166	0.791
0.2033	0.911	0.4333	0.785
0.2066	0.908	0.45	0.775
0.21	0.908	0.4666	0.769
0.2133	0.905	0.4833	0.76
0.2166	0.902	0.5	0.753
0.22	0.902	0.5166	0.744
0.2233	0.895	0.5333	0.738
0.2266	0.895	0.55	0.731

Unit# 00462 Test 4 (continued)
Step 0 12/21 16:44:28

Elapsed Time (minutes)	Displacement (feet)	Elapsed Time (minutes)	Displacement (feet)
0.5666	0.725	4.2	0.176
0.5833	0.715	4.4	0.167
0.6	0.709	4.6	0.157
0.6166	0.703	4.8	0.148
0.6333	0.697	5	0.141
0.65	0.69	5.2	0.132
0.6666	0.684	5.4	0.126
0.6833	0.678	5.6	0.119
0.7	0.671	5.8	0.11
0.7166	0.665	6	0.107
0.7333	0.659	6.2	0.1
0.75	0.652	6.4	0.094
0.7666	0.646	6.6	0.091
0.7833	0.643	6.8	0.085
0.8	0.637	7	0.082
0.8166	0.63	7.2	0.075
0.8333	0.624	7.4	0.075
0.85	0.621	7.6	0.069
0.8666	0.615	7.8	0.066
0.8833	0.608	8	0.063
0.9	0.605	8.2	0.059
0.9166	0.599	8.4	0.056
0.9333	0.596	8.6	0.053
0.95	0.589	8.8	0.05
0.9666	0.583	9	0.047
0.9833	0.58	9.2	0.047
1	0.574	9.4	0.044
1.2	0.514	9.6	0.041
1.4	0.469	9.8	0.037
1.6	0.432	10	0.037
1.8	0.397	12	0.018
2	0.365	14	0.009
2.2	0.34	16	0
2.4	0.315	18	0.006
2.6	0.293	20	0.012
2.8	0.274	22	0.015
3	0.255		
3.2	0.239		
3.4	0.227		
3.6	0.211		
3.8	0.198		
4	0.189		

SE1000C
Environmental Logger
12/22 13:54

Unit# 00462 Test 5

Setups:	INPUT 1
Type	Level (F)
Mode	Surface
I.D.	GM-5
Reference	0.000
Linearity	-0.010
Scale factor	9.990
Offset	0.010
Delay mSEC	50.000

Step 1 12/21 17:35:42

Elapsed Time (minutes)	Displacement (feet)
0	0.807
0.0033	2.987
0.0066	1.864
0.01	1.157
0.0133	1.252
0.0166	1.211
0.02	1.252
0.0233	1.214
0.0266	1.163
0.03	1.129
0.0333	1.097
0.0366	1.132
0.04	1.113
0.0433	1.103
0.0466	1.066
0.05	1.047
0.0533	1.028
0.0566	1.028
0.06	0.999
0.0633	0.987
0.0666	0.962
0.07	0.955
0.0733	0.936
0.0766	0.921
0.08	0.908
0.0833	0.892
0.0866	0.876

Elapsed Time (minutes)	Displacement (feet)	Elapsed Time (minutes)	Displacement (feet)
0.09	0.864	0.2433	0.343
0.0933	0.848	0.2466	0.337
0.0966	0.835	0.25	0.331
0.1	0.823	0.2533	0.321
0.1033	0.807	0.2566	0.315
0.1066	0.794	0.26	0.309
0.11	0.779	0.2633	0.302
0.1133	0.766	0.2666	0.296
0.1166	0.753	0.27	0.29
0.12	0.738	0.2733	0.283
0.1233	0.725	0.2766	0.28
0.1266	0.712	0.28	0.274
0.13	0.7	0.2833	0.268
0.1333	0.687	0.2866	0.264
0.1366	0.674	0.29	0.258
0.14	0.662	0.2933	0.255
0.1433	0.649	0.2966	0.249
0.1466	0.637	0.3	0.246
0.15	0.627	0.3033	0.242
0.1533	0.615	0.3066	0.239
0.1566	0.602	0.31	0.233
0.16	0.589	0.3133	0.23
0.1633	0.58	0.3166	0.227
0.1666	0.567	0.32	0.223
0.17	0.555	0.3233	0.22
0.1733	0.545	0.3266	0.217
0.1766	0.533	0.33	0.217
0.18	0.523	0.3333	0.211
0.1833	0.51	0.35	0.201
0.1866	0.501	0.3666	0.189
0.19	0.492	0.3833	0.182
0.1933	0.479	0.4	0.176
0.1966	0.469	0.4166	0.17
0.2	0.46	0.4333	0.167
0.2033	0.451	0.45	0.164
0.2066	0.441	0.4666	0.16
0.21	0.432	0.4833	0.157
0.2133	0.422	0.5	0.154
0.2166	0.413	0.5166	0.151
0.22	0.403	0.5333	0.148
0.2233	0.394	0.55	0.148
0.2266	0.384	0.5666	0.145
0.23	0.378	0.5833	0.145
0.2333	0.369	0.6	0.141
0.2366	0.359	0.6166	0.141
0.24	0.353	0.6333	0.138

Unit# 00462 Test 5 (continued)
Step 1 12/21 17:35:42

Elapsed Time (minutes)	Displacement (feet)	Elapsed Time (minutes)	Displacement (feet)
0.65	0.138	5.4	0.091
0.6666	0.138	5.6	0.088
0.6833	0.138	5.8	0.088
0.7	0.135	6	0.088
0.7166	0.135	6.2	0.088
0.7333	0.135	6.4	0.088
0.75	0.135	6.6	0.085
0.7666	0.132	6.8	0.085
0.7833	0.132	7	0.085
0.8	0.132	7.2	0.085
0.8166	0.132	7.4	0.085
0.8333	0.129	7.6	0.085
0.85	0.129	7.8	0.085
0.8666	0.129	8	0.082
0.8833	0.129	8.2	0.082
0.9	0.129	8.4	0.082
0.9166	0.126	8.6	0.082
0.9333	0.126	8.8	0.082
0.95	0.126	9	0.082
0.9666	0.126	9.2	0.082
0.9833	0.126	9.4	0.082
1	0.126	9.6	0.078
1.2	0.119	9.8	0.078
1.4	0.116	10	0.078
1.6	0.113	12	0.078
1.8	0.11	14	0.072
2	0.107		
2.2	0.107		
2.4	0.104		
2.6	0.104		
2.8	0.1		
3	0.1		
3.2	0.097		
3.4	0.097		
3.6	0.094		
3.8	0.094		
4	0.094		
4.2	0.094		
4.4	0.094		
4.6	0.091		
4.8	0.091		
5	0.091		
5.2	0.088		

Appendix G

Groundwater Analytical Results

Analytical**Technologies,**Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: Peter Shuba
ATI Project Manager

Client:	GERAGHTY & MILLER CHICAGO, ILLINOIS
Project Name:	NAVISTAR-BNR
Project Number:	CI0299.002
Project Location:	ROCK ISLAND
Accession Number:	312071
Project Manager:	JAMES AUER
Sampled By:	J. AUER/J. IHRIG

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: VOLATILES (8240)

Accession:	312041
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	ORGANIC/MS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 001 Sample Date/Time: 30-NOV-93 1640
Client Sample Id: GM-1 Received Date: 01-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: C Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	17	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 001
Client Sample Id: GM-1
Sample Date/Time: 30-NOV-93 1640
Received Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	168*	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	104	76-114	
TOLUENE-D8	%REC/SURR	87*	88-115	
ANALYST	INITIALS	LP		

Comments:
* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 30-NOV-93 1600
Client Sample Id: GM-2 Received Date: 01-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: C Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 30-NOV-93 1600
Client Sample Id: GM-2 Received Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	102	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	96	76-114	
TOLUENE-D8	%REC/SURR	99	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 30-NOV-93 1500
Client Sample Id: GM-3 Received Date: 01-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: C Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	14	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 30-NOV-93 1500
Client Sample Id: GM-3 Received Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	105	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	102	76-114	
TOLUENE-D8	%REC/SURR	103	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 004 Sample Date/Time: 30-NOV-93 1420
Client Sample Id: GM-4 Received Date: 01-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: C Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	13	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 004
Client Sample Id: GM-4
Sample Date/Time: 30-NOV-93 1420
Received Date: 01-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	111	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	106	76-114	
TOLUENE-D8	%REC/SURR	100	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)

Client Sample Id:	Parameter:	Unit:	Result:
GM-1	ACETONE	UG/L	17
GM-3	ACETONE	UG/L	14
GM-4	ACETONE	UG/L	13

Analytical**Technologies,**Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: Peter Shuba
ATI Project Manager

Client:	GERAGHTY & MILLER CHICAGO, ILLINOIS
Project Name:	NAVISTAR-BNR
Project Number:	CI0299.002
Project Location:	ROCK ISLAND
Accession Number:	312041
Project Manager:	JAMES AUER
Sampled By:	J. AUER/J. IHRIG

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: Group of Single Metals

Accession:	312041
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	METALS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals
Matrix: LIQUID
QC Level: I

Lab Id: 001
Client Sample Id: GM-1
Sample Date/Time: 30-NOV-93 1640
Received Date: 01-DEC-93

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
LEAD (239.2)	MG/L	ND	0.003		P2W367	GJ

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 30-NOV-93 1600
Client Sample Id: GM-2 Received Date: 01-DEC-93

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
LEAD (239.2)	MG/L	ND	0.003		P2W367	GJ

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 30-NOV-93 1500
Client Sample Id: GM-3 Received Date: 01-DEC-93

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
LEAD (239.2)	MG/L	ND	0.003		P2W367	GJ

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals
Matrix: LIQUID
QC Level: I

Lab Id: 004
Client Sample Id: GM-4
Sample Date/Time: 30-NOV-93 1420
Received Date: 01-DEC-93

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
LEAD (239.2)	MG/L	ND	0.003		P2W367	GJ

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: PCB

Accession:	312041
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	PESTICIDES

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3510 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: LIQUID
QC Level: I

Lab Id: 001 Sample Date/Time: 30-NOV-93 1640
Client Sample Id: GM-1 Received Date: 01-DEC-93

Batch: PCW302 Extraction Date: 02-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	36	22-147	
TCMX	%REC/SURR	41	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3510 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 30-NOV-93 1600
Client Sample Id: GM-2 Received Date: 01-DEC-93

Batch: PCW302 Extraction Date: 02-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	44	22-147	
TCMX	%REC/SURR	55	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3510 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: LIQUID
QC Level: I

Lab Id: 003
Client Sample Id: GM-3
Sample Date/Time: 30-NOV-93 1500
Received Date: 01-DEC-93

Batch: PCW302
Blank: A
Dry Weight %: N/A
Extraction Date: 02-DEC-93
Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	44	22-147	
TCMX	%REC/SURR	49	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 8080, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: 3510 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Matrix: LIQUID
QC Level: I

Lab Id: 004 Sample Date/Time: 30-NOV-93 1420
Client Sample Id: GM-4 Received Date: 01-DEC-93

Batch: PCW302 Extraction Date: 02-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	72	22-147	
TCMX	%REC/SURR	65	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: POLYNUCLEAR AROMATICS BY 8310

Accession:	312041
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	SEMI-VOLATILE FUELS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 001
Client Sample Id: GM-1
Sample Date/Time: 30-NOV-93 1640
Received Date: 01-DEC-93

Batch: PAW312
Blank: A
Dry Weight %: N/A
Extraction Date: 02-DEC-93
Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	100	
ACENAPHTHYLENE	UG/L	1300	100	
ANTHRACENE	UG/L	580	100	
BENZO(a)ANTHRACENE	UG/L	460	100	
BENZO(a)PYRENE	UG/L	ND	100	
BENZO(b)FLUORANTHENE	UG/L	200	100	
BENZO(g,h,i)PERYLENE	UG/L	ND	100	
BENZO(k)FLUORANTHENE	UG/L	180	100	
CHRYSENE	UG/L	260	100	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	100	
FLUORANTHENE	UG/L	2900	100	
FLUORENE	UG/L	820	100	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	100	
NAPHTHALENE	UG/L	ND	100	
PHENANTHRENE	UG/L	1600	100	
PYRENE	UG/L	2000	100	
1-METHYLNAPHTHALENE	UG/L	2400	100	
2-METHYLNAPHTHALENE	UG/L	1100	100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 30-NOV-93 1600
Client Sample Id: GM-2 Received Date: 01-DEC-93

Batch: PAW312 Extraction Date: 02-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	130	1	
ANTHRACENE	UG/L	13	1	
BENZO(a)ANTHRACENE	UG/L	15	1	
BENZO(a)PYRENE	UG/L	6	1	
BENZO(b)FLUORANTHENE	UG/L	20	1	
BENZO(g,h,i)PERYLENE	UG/L	1	1	
BENZO(k)FLUORANTHENE	UG/L	7	1	
CHRYSENE	UG/L	23	1	
DIBENZO(a,h)ANTHRACENE	UG/L	18	1	
FLUORANTHENE	UG/L	220	1	
FLUORENE	UG/L	79	1	
INDENO(1,2,3-cd)PYRENE	UG/L	1	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	73	1	
PYRENE	UG/L	120	1	
1-METHYLNAPHTHALENE	UG/L	390	1	
2-METHYLNAPHTHALENE	UG/L	160	1	
2-CHLOROANTHRACENE	%REC/SURR	573*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 30-NOV-93 1500
Client Sample Id: GM-3 Received Date: 01-DEC-93

Batch: PAW312 Extraction Date: 02-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	270	1	
ANTHRACENE	UG/L	13	1	
BENZO(a)ANTHRACENE	UG/L	13	1	
BENZO(a)PYRENE	UG/L	3	1	
BENZO(b)FLUORANTHENE	UG/L	15	1	
BENZO(g,h,i)PERYLENE	UG/L	ND	1	
BENZO(k)FLUORANTHENE	UG/L	5	1	
CHRYSENE	UG/L	11	1	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1	
FLUORANTHENE	UG/L	170	1	
FLUORENE	UG/L	89	1	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	71	1	
PYRENE	UG/L	80	1	
1-METHYLNAPHTHALENE	UG/L	310	1	
2-METHYLNAPHTHALENE	UG/L	230	1	
2-CHLOROANTHRACENE	%REC/SURR	483*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 004
Client Sample Id: GM-4
Sample Date/Time: 30-NOV-93 1420
Received Date: 01-DEC-93

Batch: PAW312
Blank: A
Dry Weight %: N/A
Extraction Date: 02-DEC-93
Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	310	1	
ANTHRACENE	UG/L	26	1	
BENZO(a)ANTHRACENE	UG/L	26	1	
BENZO(a)PYRENE	UG/L	12	1	
BENZO(b)FLUORANTHENE	UG/L	37	1	
BENZO(g,h,i)PERYLENE	UG/L	2	1	
BENZO(k)FLUORANTHENE	UG/L	17	1	
CHRYSENE	UG/L	46	1	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1	
FLUORANTHENE	UG/L	390	10	
FLUORENE	UG/L	130	1	
INDENO(1,2,3-cd)PYRENE	UG/L	2	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	130	10	
PYRENE	UG/L	250	1	
1-METHYLNAPHTHALENE	UG/L	550	1	
2-METHYLNAPHTHALENE	UG/L	250	1	
2-CHLOROANTHRACENE	%REC/SURR	1039*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310

Client Sample Id:	Parameter:	Unit:	Result:
GM-1	ACENAPHTHYLENE	UG/L	1300
	ANTHRACENE	UG/L	580
	BENZO(a)ANTHRACENE	UG/L	460
	BENZO(b)FLUORANTHENE	UG/L	200
	BENZO(k)FLUORANTHENE	UG/L	180
	CHRYSENE	UG/L	260
	FLUORANTHENE	UG/L	2900
	FLUORENE	UG/L	820
	PHENANTHRENE	UG/L	1600
	PYRENE	UG/L	2000
	1-METHYLNAPHTHALENE	UG/L	2400
	2-METHYLNAPHTHALENE	UG/L	1100
GM-2	ACENAPHTHYLENE	UG/L	130
	ANTHRACENE	UG/L	13
	BENZO(a)ANTHRACENE	UG/L	15
	BENZO(a)PYRENE	UG/L	6
	BENZO(b)FLUORANTHENE	UG/L	20
	BENZO(g,h,i)PERYLENE	UG/L	1
	BENZO(k)FLUORANTHENE	UG/L	7
	CHRYSENE	UG/L	23
	DIBENZO(a,h)ANTHRACENE	UG/L	18
	FLUORANTHENE	UG/L	220
	FLUORENE	UG/L	79
	INDENO(1,2,3-cd)PYRENE	UG/L	1
	PHENANTHRENE	UG/L	73
	PYRENE	UG/L	120
	1-METHYLNAPHTHALENE	UG/L	390
	2-METHYLNAPHTHALENE	UG/L	160
GM-3	ACENAPHTHYLENE	UG/L	270
	ANTHRACENE	UG/L	13
	BENZO(a)ANTHRACENE	UG/L	13
	BENZO(a)PYRENE	UG/L	3
	BENZO(b)FLUORANTHENE	UG/L	15
	BENZO(k)FLUORANTHENE	UG/L	5
	CHRYSENE	UG/L	11
	FLUORANTHENE	UG/L	170
	FLUORENE	UG/L	89
	PHENANTHRENE	UG/L	71
	PYRENE	UG/L	80
	1-METHYLNAPHTHALENE	UG/L	310
	2-METHYLNAPHTHALENE	UG/L	230
GM-4	ACENAPHTHYLENE	UG/L	310
	ANTHRACENE	UG/L	26
	BENZO(a)ANTHRACENE	UG/L	26

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312041
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310

Client Sample Id:	Parameter:	Unit:	Result:
	BENZO(a)PYRENE	UG/L	12
	BENZO(b)FLUORANTHENE	UG/L	37
	BENZO(g,h,i)PERYLENE	UG/L	2
	BENZO(k)FLUORANTHENE	UG/L	17
	CHRYSENE	UG/L	46
	FLUORANTHENE	UG/L	390
	FLUORENE	UG/L	130
	INDENO(1,2,3-cd)PYRENE	UG/L	2
	PHENANTHRENE	UG/L	130
	PYRENE	UG/L	250
	1-METHYLNAPHTHALENE	UG/L	550
	2-METHYLNAPHTHALENE	UG/L	250

GERAGHTY & MILLER, INC.
Environmental Services

Laboratory Task Order No. _____

CHAIN-OF-CUSTODY RECORD

Page _____ of _____

312041

Project Number 0700299.002

Project Location NAVISTAR - BNR / ROCK ISLAND

Laboratory ATI

Sampler(s)/Affiliation J. AUER / G M
J. IHRIG / G M

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	SAMPLE BOTTLE / CONTAINER DESCRIPTION: 40 mL AMBER VIAL (VOCs, 8240)	1 L AMBER GLASS JAR (PNAs, 8310)	1 L AMBER GLASS JAR (PCBs, 8080)	250 mL PLASTIC JAR (TAL METALS)						TOTAL
GM-1	L	11/30 1640		2	1	1	1						5
GM-2	L	11/30 1600		2	1	1	1						5
GM-3	L	11/30 1500		2	1	1	1						5
GM-4	L	11/30 1420		2	1	1	1						5

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 20

Relinquished by: [signature]	Organization: GERAGHTY - MILLER	Date 11/30/95	Time 6:00 PM	Seal Intact? Yes No N/A
Received by: _____	Organization: _____	Date / /	Time _____	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact? Yes No N/A
Received by: [signature]	Organization: [illegible]	Date 12/1/95	Time [illegible]	

Special Instructions/Remarks: _____

NAD 27 MISSING SAMPLE PICKED WITH HNO3 TO A PH OF < 2

Delivery Method: ☐ In Person ☒ Common Carrier FEDEX ☐ Lab Courier ☐ Other _____
SPECIFY SPECIFY

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: Group of Single Metals

Accession:	312071
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	METALS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Multiple Sample Report Format"

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals
QcLevel: I

Lab Parameter: Id	Unit:	Result:	R.L	Q:
GM-5 001 LEAD (239.2)	MG/L	ND	0.003	
GM-6 002 LEAD (239.2)	MG/L	ND	0.003	
GM-0 003 LEAD (239.2)	MG/L	ND	0.003	
MW-5 004 LEAD (239.2)	MG/L	ND	0.003	
MW-6 005 LEAD (239.2)	MG/L	ND	0.003	
MW-8 006 LEAD (239.2)	MG/L	ND	0.003	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Multiple Sample Report Format"

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: Group of Single Metals

Client Id:	Lab Id:	Matrix:	Date/Time Sampled:	Date Received:
GM-5	001	LIQUID	01-DEC-93 1000	02-DEC-93
GM-6	002	LIQUID	01-DEC-93 0850	02-DEC-93
GM-0	003	LIQUID	01-DEC-93 0910	02-DEC-93
MW-5	004	LIQUID	01-DEC-93 1230	02-DEC-93
MW-6	005	LIQUID	01-DEC-93 1130	02-DEC-93
MW-8	006	LIQUID	01-DEC-93 1040	02-DEC-93

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: PCB

Accession:	312071
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	PESTICIDES

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 001 Sample Date/Time: 01-DEC-93 1000
Client Sample Id: GM-5 Received Date: 02-DEC-93

Batch: PCW302 Extraction Date: 03-DEC-93
Blank: B Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	1	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	39	22-147	
TCMX	%REC/SURR	68	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 01-DEC-93 0850
Client Sample Id: GM-6 Received Date: 02-DEC-93

Batch: PCW302 Extraction Date: 03-DEC-93
Blank: B Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	72	22-147	
TCMX	%REC/SURR	58	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 01-DEC-93 0910
Client Sample Id: GM-0 Received Date: 02-DEC-93

Batch: PCW302 Extraction Date: 03-DEC-93
Blank: B Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	77	22-147	
TCMX	%REC/SURR	58	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 004 Sample Date/Time: 01-DEC-93 1230
Client Sample Id: MW-5 Received Date: 02-DEC-93

Batch: PCW302 Extraction Date: 03-DEC-93
Blank: B Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	67	22-147	
TCMX	%REC/SURR	67	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 005 Sample Date/Time: 01-DEC-93 1130
Client Sample Id: MW-6 Received Date: 02-DEC-93

Batch: PCW302 Extraction Date: 03-DEC-93
Blank: B Dry Weight %: N/A Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	59	22-147	
TCMX	%REC/SURR	54	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB
Analysis Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Extraction Method: 608, Federal Register 40 CFR, Part 136, July 1, 1992
Matrix: LIQUID
QC Level: I

Lab Id: 006
Client Sample Id: MW-8
Sample Date/Time: 01-DEC-93 1040
Received Date: 02-DEC-93

Batch: PCW302
Blank: B
Dry Weight %: N/A
Extraction Date: 03-DEC-93
Analysis Date: 07-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
AROCLOR-1016	UG/L	ND	1	
AROCLOR-1221	UG/L	ND	1	
AROCLOR-1232	UG/L	ND	1	
AROCLOR-1242	UG/L	ND	1	
AROCLOR-1248	UG/L	ND	1	
AROCLOR-1254	UG/L	ND	1	
AROCLOR-1260	UG/L	ND	1	
DCB	%REC/SURR	72	22-147	
TCMX	%REC/SURR	73	14-134	
ANALYST	INITIALS	SM		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: PCB

Client Sample Id:	Parameter:	Unit:	Result:
GM-5	AROCLOR-1254	UG/L	1

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: POLYNUCLEAR AROMATICS BY 8310

Accession:	312071
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	SEMI-VOLATILE FUELS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Date 15-Dec-93

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 001
Client Sample Id: GM-5
Sample Date/Time: 01-DEC-93 1000
Received Date: 02-DEC-93

Batch: PAW313
Blank: A
Dry Weight %: N/A
Extraction Date: 03-DEC-93
Analysis Date: 13-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	100	
ACENAPHTHYLENE	UG/L	730	100	
ANTHRACENE	UG/L	160	100	
BENZO(a)ANTHRACENE	UG/L	170	100	
BENZO(a)PYRENE	UG/L	ND	100	
BENZO(b)FLUORANTHENE	UG/L	300	100	
BENZO(g,h,i)PERYLENE	UG/L	ND	100	
BENZO(k)FLUORANTHENE	UG/L	ND	100	
CHRYSENE	UG/L	250	100	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	100	
FLUORANTHENE	UG/L	2400	100	
FLUORENE	UG/L	840	100	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	100	
NAPHTHALENE	UG/L	ND	100	
PHENANTHRENE	UG/L	840	100	
PYRENE	UG/L	1800	100	
1-METHYLNAPHTHALENE	UG/L	3400	100	
2-METHYLNAPHTHALENE	UG/L	1400	100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 01-DEC-93 0850
Client Sample Id: GM-6 Received Date: 02-DEC-93

Batch: PAW313 Extraction Date: 03-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 13-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	100	
ACENAPHTHYLENE	UG/L	480	100	
ANTHRACENE	UG/L	120	100	
BENZO(a)ANTHRACENE	UG/L	110	100	
BENZO(a)PYRENE	UG/L	ND	100	
BENZO(b)FLUORANTHENE	UG/L	210	100	
BENZO(g,h,i)PERYLENE	UG/L	ND	100	
BENZO(k)FLUORANTHENE	UG/L	ND	100	
CHRYSENE	UG/L	250	100	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	100	
FLUORANTHENE	UG/L	1600	100	
FLUORENE	UG/L	540	100	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	100	
NAPHTHALENE	UG/L	ND	100	
PHENANTHRENE	UG/L	570	100	
PYRENE	UG/L	1100	100	
1-METHYLNAPHTHALENE	UG/L	2000	100	
2-METHYLNAPHTHALENE	UG/L	850	100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 01-DEC-93 0910
Client Sample Id: GM-0 Received Date: 02-DEC-93

Batch: PAW313 Extraction Date: 03-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	310	1	
ANTHRACENE	UG/L	16	1	
BENZO(a)ANTHRACENE	UG/L	14	1	
BENZO(a)PYRENE	UG/L	ND	1	
BENZO(b)FLUORANTHENE	UG/L	ND	1	
BENZO(g,h,i)PERYLENE	UG/L	ND	1	
BENZO(k)FLUORANTHENE	UG/L	ND	1	
CHRYSENE	UG/L	9	1	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1	
FLUORANTHENE	UG/L	ND	1	
FLUORENE	UG/L	170	1	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	77	1	
PYRENE	UG/L	130	1	
1-METHYLNAPHTHALENE	UG/L	540	1	
2-METHYLNAPHTHALENE	UG/L	260	1	
2-CHLOROANTHRACENE	%REC/SURR	477*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 004
Client Sample Id: MW-5
Sample Date/Time: 01-DEC-93 1230
Received Date: 02-DEC-93

Batch: PAW313
Blank: A
Dry Weight %: N/A
Extraction Date: 03-DEC-93
Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	120	1	
ANTHRACENE	UG/L	8	1	
BENZO(a)ANTHRACENE	UG/L	10	1	
BENZO(a)PYRENE	UG/L	6	1	
BENZO(b)FLUORANTHENE	UG/L	ND	1	
BENZO(g,h,i)PERYLENE	UG/L	ND	1	
BENZO(k)FLUORANTHENE	UG/L	3	1	
CHRYSENE	UG/L	ND	1	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1	
FLUORANTHENE	UG/L	120	1	
FLUORENE	UG/L	56	1	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	49	1	
PYRENE	UG/L	70	1	
1-METHYLNAPHTHALENE	UG/L	530	1	
2-METHYLNAPHTHALENE	UG/L	ND	1	
2-CHLOROANTHRACENE	%REC/SURR	287*	24-154	
ANALYST	INITIALS	DGH		

Comments:
*SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 005
Client Sample Id: MW-6
Sample Date/Time: 01-DEC-93 1130
Received Date: 02-DEC-93

Batch: PAW313
Blank: A
Dry Weight %: N/A
Extraction Date: 03-DEC-93
Analysis Date: 13-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	100	
ACENAPHTHYLENE	UG/L	1300	100	
ANTHRACENE	UG/L	500	100	
BENZO(a)ANTHRACENE	UG/L	680	100	
BENZO(a)PYRENE	UG/L	630	100	
BENZO(b)FLUORANTHENE	UG/L	1100	100	
BENZO(g,h,i)PERYLENE	UG/L	290	100	
BENZO(k)FLUORANTHENE	UG/L	500	100	
CHRYSENE	UG/L	1300	100	
DIBENZO(a,h)ANTHRACENE	UG/L	1500	100	
FLUORANTHENE	UG/L	8100	100	
FLUORENE	UG/L	2000	100	
INDENO(1,2,3-cd)PYRENE	UG/L	180	100	
NAPHTHALENE	UG/L	ND	100	
PHENANTHRENE	UG/L	2200	100	
PYRENE	UG/L	6000	100	
1-METHYLNAPHTHALENE	UG/L	6600	100	
2-METHYLNAPHTHALENE	UG/L	2500	100	
2-CHLOROANTHRACENE	%REC/SURR	D*	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310 / SW 846, 3rd Edition, September 1986 and Revision 1, July 1992
Extraction Method: 3510/SW-846, 3rd Edition, September 1986 and Revision 1, July 1992
Matrix: LIQUID
QC Level: I

Lab Id: 006 Sample Date/Time: 01-DEC-93 1040
Client Sample Id: MW-8 Received Date: 02-DEC-93

Batch: PAW313 Extraction Date: 03-DEC-93
Blank: A Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACENAPHTHENE	UG/L	ND	1	
ACENAPHTHYLENE	UG/L	ND	1	
ANTHRACENE	UG/L	ND	1	
BENZO(a)ANTHRACENE	UG/L	ND	1	
BENZO(a)PYRENE	UG/L	ND	1	
BENZO(b)FLUORANTHENE	UG/L	ND	1	
BENZO(g,h,i)PERYLENE	UG/L	ND	1	
BENZO(k)FLUORANTHENE	UG/L	ND	1	
CHRYSENE	UG/L	ND	1	
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1	
FLUORANTHENE	UG/L	ND	1	
FLUORENE	UG/L	ND	1	
INDENO(1,2,3-cd)PYRENE	UG/L	ND	1	
NAPHTHALENE	UG/L	ND	1	
PHENANTHRENE	UG/L	ND	1	
PYRENE	UG/L	ND	1	
1-METHYLNAPHTHALENE	UG/L	23	1	
2-METHYLNAPHTHALENE	UG/L	6	1	
2-CHLOROANTHRACENE	%REC/SURR	75	24-154	
ANALYST	INITIALS	DGH		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310

Client Sample Id:	Parameter:	Unit:	Result:
GM-5	ACENAPHTHYLENE	UG/L	730
	ANTHRACENE	UG/L	160
	BENZO(a)ANTHRACENE	UG/L	170
	BENZO(b)FLUORANTHENE	UG/L	300
	CHRYSENE	UG/L	250
	FLUORANTHENE	UG/L	2400
	FLUORENE	UG/L	840
	PHENANTHRENE	UG/L	840
	PYRENE	UG/L	1800
	1-METHYLNAPHTHALENE	UG/L	3400
	2-METHYLNAPHTHALENE	UG/L	1400
GM-6	ACENAPHTHYLENE	UG/L	480
	ANTHRACENE	UG/L	120
	BENZO(a)ANTHRACENE	UG/L	110
	BENZO(b)FLUORANTHENE	UG/L	210
	CHRYSENE	UG/L	250
	FLUORANTHENE	UG/L	1600
	FLUORENE	UG/L	540
	PHENANTHRENE	UG/L	570
	PYRENE	UG/L	1100
	1-METHYLNAPHTHALENE	UG/L	2000
	2-METHYLNAPHTHALENE	UG/L	850
GM-0	ACENAPHTHYLENE	UG/L	310
	ANTHRACENE	UG/L	16
	BENZO(a)ANTHRACENE	UG/L	14
	CHRYSENE	UG/L	9
	FLUORENE	UG/L	170
	PHENANTHRENE	UG/L	77
	PYRENE	UG/L	130
	1-METHYLNAPHTHALENE	UG/L	540
	2-METHYLNAPHTHALENE	UG/L	260
MW-5	ACENAPHTHYLENE	UG/L	120
	ANTHRACENE	UG/L	8
	BENZO(a)ANTHRACENE	UG/L	10
	BENZO(a)PYRENE	UG/L	6
	BENZO(k)FLUORANTHENE	UG/L	3
	FLUORANTHENE	UG/L	120
	FLUORENE	UG/L	56
	PHENANTHRENE	UG/L	49
	PYRENE	UG/L	70
	1-METHYLNAPHTHALENE	UG/L	530
MW-6	ACENAPHTHYLENE	UG/L	1300
	ANTHRACENE	UG/L	500
	BENZO(a)ANTHRACENE	UG/L	680

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: POLYNUCLEAR AROMATICS BY 8310

Client Sample Id:	Parameter:	Unit:	Result:
	BENZO(a)PYRENE	UG/L	630
	BENZO(b)FLUORANTHENE	UG/L	1100
	BENZO(g,h,i)PERYLENE	UG/L	290
	BENZO(k)FLUORANTHENE	UG/L	500
	CHRYSENE	UG/L	1300
	DIBENZO(a,h)ANTHRACENE	UG/L	1500
	FLUORANTHENE	UG/L	8100
	FLUORENE	UG/L	2000
	INDENO(1,2,3-cd)PYRENE	UG/L	180
	PHENANTHRENE	UG/L	2200
	PYRENE	UG/L	6000
	1-METHYLNAPHTHALENE	UG/L	6600
	2-METHYLNAPHTHALENE	UG/L	2500
MW-8	1-METHYLNAPHTHALENE	UG/L	23
	2-METHYLNAPHTHALENE	UG/L	6

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: VOLATILES (8240)

Accession:	312071
Client:	GERAGHTY & MILLER
Project Number:	CI0299.002
Project Name:	NAVISTAR-BNR
Project Location:	ROCK ISLAND
Department:	ORGANIC/MS

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 001 Sample Date/Time: 01-DEC-93 1000
Client Sample Id: GM-5 Received Date: 02-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: D Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	3	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 001
Client Sample Id: GM-5
Sample Date/Time: 01-DEC-93 1000
Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	138*	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	97	76-114	
TOLUENE-D8	%REC/SURR	97	88-115	
ANALYST	INITIALS	LP		

Comments:
* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 01-DEC-93 0850
Client Sample Id: GM-6 Received Date: 02-DEC-93

Batch: VIW159 Extraction Date: N/A
Blank: A Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 002 Sample Date/Time: 01-DEC-93 0850
Client Sample Id: GM-6 Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	112	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	99	76-114	
TOLUENE-D8	%REC/SURR	92	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 003 Sample Date/Time: 01-DEC-93 0910
Client Sample Id: GM-0 Received Date: 02-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: D Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 003
Client Sample Id: GM-0
Sample Date/Time: 01-DEC-93 0910
Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	107	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	101	76-114	
TOLUENE-D8	%REC/SURR	102	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 004 Sample Date/Time: 01-DEC-93 1230
Client Sample Id: MW-5 Received Date: 02-DEC-93

Batch: VIW158 Extraction Date: N/A
Blank: D Dry Weight %: N/A Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 004
Client Sample Id: MW-5
Sample Date/Time: 01-DEC-93 1230
Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	143*	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	98	76-114	
TOLUENE-D8	%REC/SURR	93	88-115	
ANALYST	INITIALS	LP		

Comments:
* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 005
Client Sample Id: MW-6
Sample Date/Time: 01-DEC-93 1130
Received Date: 02-DEC-93

Batch: VIW158
Blank: D
Dry Weight %: N/A
Extraction Date: N/A
Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	17	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 005
Client Sample Id: MW-6
Sample Date/Time: 01-DEC-93 1130
Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	103	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	96	76-114	
TOLUENE-D8	%REC/SURR	96	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 006
Client Sample Id: MW-8
Sample Date/Time: 01-DEC-93 1040
Received Date: 02-DEC-93

Batch: VIW158
Blank: D
Dry Weight %: N/A
Extraction Date: N/A
Analysis Date: 08-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: LIQUID
QC Level: I

Lab Id: 006
Client Sample Id: MW-8
Sample Date/Time: 01-DEC-93 1040
Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	112	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	100	76-114	
TOLUENE-D8	%REC/SURR	98	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: WATER
QC Level: I

Lab Id: 007 Sample Date/Time: N/S
Client Sample Id: TRIP BLANK Received Date: 02-DEC-93

Batch: VIW161 Extraction Date: N/A
Blank: B Dry Weight %: N/A Analysis Date: 14-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
ACETONE	UG/L	ND	10	
ACROLEIN	UG/L	ND	100	
ACRYLONITRILE	UG/L	ND	100	
BENZENE	UG/L	ND	1	
BROMODICHLOROMETHANE	UG/L	ND	1	
BROMOFORM	UG/L	ND	2	
BROMOMETHANE	UG/L	ND	1	
2-BUTANONE (MEK)	UG/L	ND	3	
CARBON DISULFIDE	UG/L	ND	1	
CARBON TETRACHLORIDE	UG/L	ND	2	
CHLOROBENZENE	UG/L	ND	1	
CHLOROETHANE	UG/L	ND	1	
2-CHLOROETHYLVINYL ETHER	UG/L	ND	5	
CHLOROFORM	UG/L	ND	2	
CHLOROMETHANE	UG/L	ND	2	
CHLORODIBROMOMETHANE	UG/L	ND	5	
DIBROMOMETHANE	UG/L	ND	5	
DICHLORODIFLUOROMETHANE	UG/L	ND	5	
1,1-DICHLOROETHANE	UG/L	ND	1	
1,2-DICHLOROETHANE	UG/L	ND	2	
1,1-DICHLOROETHENE	UG/L	ND	1	
TOTAL 1,2-DICHLOROETHYLENE	UG/L	ND	5	
1,2-DICHLOROPROPANE	UG/L	ND	2	
CIS-1,3-DICHLOROPROPENE	UG/L	ND	1	
TRANS-1,3-DICHLOROPROPENE	UG/L	ND	1	
1,4-DICHLORO-2-BUTENE	UG/L	ND	5	
ETHYL BENZENE	UG/L	ND	1	
ETHYL METHACRYLATE	UG/L	ND	5	
2-HEXANONE	UG/L	ND	3	
IODOMETHANE	UG/L	ND	5	
METHYLENE CHLORIDE	UG/L	ND	3	
4-METHYL-2-PENTANONE	UG/L	ND	3	
STYRENE	UG/L	ND	2	
1,1,2,2-TETRACHLOROETHANE	UG/L	ND	2	
TETRACHLOROETHENE	UG/L	ND	1	
TOLUENE	UG/L	ND	5	
1,1,1-TRICHLOROETHANE	UG/L	ND	5	
1,1,2-TRICHLOROETHANE	UG/L	ND	2	
TRICHLOROETHENE	UG/L	ND	1	
TRICHLOROFLUOROMETHANE	UG/L	ND	1	

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)
Analysis Method: 8240, SW 846, 3rd Edition, September 1986 and Rev. 1, July 1992.
Extraction Method: N/A
Matrix: WATER
QC Level: I

Lab Id: 007 Sample Date/Time: N/S
Client Sample Id: TRIP BLANK Received Date: 02-DEC-93

Parameter:	Units:	Results:	Rpt Lmts:	Q:
1,2,3 TRICHLOROPROPANE	UG/L	ND	5	
VINYL ACETATE	UG/L	ND	2	
VINYL CHLORIDE	UG/L	ND	1	
TOTAL XYLENES	UG/L	ND	2	
BROMOFLUOROBENZENE	%REC/SURR	94	86-115	
1,2-DICHLOROETHANE-D4	%REC/SURR	95	76-114	
TOLUENE-D8	%REC/SURR	101	88-115	
ANALYST	INITIALS	LP		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 312071
Client: GERAGHTY & MILLER
Project Number: CI0299.002
Project Name: NAVISTAR-BNR
Project Location: ROCK ISLAND
Test: VOLATILES (8240)

Client Sample Id:	Parameter:	Unit:	Result:
GM-5	BENZENE	UG/L	3
MW-6	ACETONE	UG/L	17

GEraghty & MILLER, INC.
Environmental Services

Laboratory Task Order No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number GIO299.002

Project Location NAVISTAR BNR/ROCK ISLAND

Laboratory ATI

Sampler(s)/Affiliation J. AHLR/GM
J. IHRIG/GM

312071

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	SAMPLE BOTTLE / CONTAINER DESCRIPTION: 4 oz AMBER GLASS VIAL (HCl) VOCs (8240)	1 L AMBER GLASS PNAs (8310)	1 L AMBER GLASS PCBs (8080)	250 mL PLASTIC LEAD ONLY					TOTAL
GM-5	L	12/01 10:00		2	1	1	1					5
GM-6	L	12/01 0850		2	1	1	1					5
GM-0	L	12/01 0910		2	1	1	1					5
MW-5	L	12/01 1230		2	1	1	1					5
MW-6	L	12/01 11:30		2	1	1	1					5
MW-8	L	12/01 1040		2	1	1	1					5
TRIP BLANK	L			2								2

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: ~~32~~ 32

Relinquished by: [signature]	Organization: GERAGHTY & MILLER	Date 12/01/93	Time 2:00PM	Seal Intact? Yes No N/A
Received by: _____	Organization: _____	Date / /	Time _____	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?
Received by: Linda L. Kitt	Organization: ATI/Pensacola	Date 12/02/93	Time 0955	(Yes) No N/A

Special Instructions/Remarks:
NEED TO PRESERVE METALS (LEAD) TO A PH=2.0

Delivery Method: ☐ In Person ☒ Common Carrier FEDEX (SPECIFY) ☐ Lab Courier ☐ Other _____